# EXHIBIT 31

Redacted Version of Document Sought to be Sealed

Full 30(b)(6) Deposition Transcript of Konstantinos Papamiltiadis, dated February 23, 2021

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 2 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	UNITED STATES DISTRICT COURT
2	NORTHERN DISTRICT OF CALIFORNIA
3	
4	IN RE: FACEBOOK, INC. CONSUMER ) MDL No. 2843
5	PRIVACY USER PROFILE LITIGATION) Case No.
6	) 18-md-02843-VC
7	This document relates to:
8	ALL ACTIONS )
9	)
10	
11	
12	
13	*** HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY ***
14	
15	
16	REMOTE VIDEOTAPED DEPOSITION BY VIRTUAL ZOOM OF
17	FACEBOOK INC. REPRESENTATIVE,
18	KONSTANTINOS PAPAMILTIADIS
19	TUESDAY, FEBRUARY 23, 2021
20	
21	
22	Reported by:
23	Ashala Tylor, CSR #2436, CLR, CRR, RPR
24	JOB NO. 4473154
25	PAGES 1 - 280
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1	UNITED STATES DISTRICT COURT
2	NORTHERN DISTRICT OF CALIFORNIA
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4	IN RE: FACEBOOK, INC. CONSUMER ) MDL No. 2843
5	PRIVACY USER PROFILE LITIGATION) Case No.
6	) 18-md-02843-VC
7	This document relates to: )
8	ALL ACTIONS )
9	)
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16	Videotaped deposition of FACEBOOK, INC.
17	REPRESENTATIVE, KONSTANTINOS PAPAMILTIADIS taken via
18	virtual Zoom, commencing at 9:10 a.m. and ending at
19	3:58 p.m., on Tuesday, February 23, 2021, before Ashala
20	Tylor, CSR No. 2436, RPR, CRR, CLR.
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25	
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1	APPEARANCES OF COUNSEL:
2	FOR THE PLAINTIFF:
3	BLEICHMAR FONTI & AULD LLP
4	BY: LESLEY E. WEAVER, ESQ.
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1	APPEARANCES (continued)
2	FOR PLAINTIFFS:
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1				
1	APPEARANCES (continued)			
2	FOR THE DEFENDANT FACEBOOK, INC.:			
3	GIBSON, DUNN & CRUTCHER LLP			
4	BY: DEBORAH STEIN, ESQ.			
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14	200 Park Avenue, 47th Floor			
15	New York, New York 10166			
16	212.351.4000			
17	lmumm@gibsondunn.com			
18				
19	Also Present:			
20	Ian Chen, In-House Facebook Counsel			
21	Kimberly Decker, Videographer			
22				
23				
2 4				
25				
	Danie E			
	Page 5			

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1			
1		I N D E X	
2	WITNESS	EXAMINATION BY	PAGE
3	KONSTANTINOS	PAPAMILTIADIS	
4		Ms. Weaver	9, 171
5			
6		EXHIBITS	
7	NO.	DESCRIPTION	PAGE
8	Exhibit 1	Plaintiffs' Amended Notice of	10
9		Deposition of Defendant Facebook,	
10		Inc. Pursuant to Federal Rule of	
11		Civil Procedure 30(b)(6)	
12	Exhibit 2	Discovery Order No. 9	10
13		(Dkt. Nos. 515, 526, 537, 548)	
14			
17	Exhibit 4		
20	Exhibit 5		
24		Instruction Not to Answer	
25		Page 91, LIne 9	
		Pag	ge 6

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1	Tuesday, February 23, 2021	
2	9:10 a.m.	
3	000	
4		
5	THE VIDEOGRAPHER: Good morning. We are	09:10
6	going on the record at 9:10 a.m. on February 23rd of	09:10
7	2021. All participants are attending remotely.	09:10
8	Audio and video recording will continue to	09:10
9	take place unless all parties agree to go off the	09:10
10	record.	09:10
11	This is Media Unit 1 of the recorded	09:10
12	deposition of Facebook, Inc. representative,	09:10
13	Konstantinos Papamiltiadis, taken by counsel for the	09:10
14	plaintiffs in the matter of Facebook, Inc. Consumer	09:10
15	Privacy User Profile Litigation filed in the	09:10
16	United States District Court, Northern District of	09:10
17	California, Case Number 18-md-02843-VC.	09:10
18	My name is Kimberly Decker from Veritext	09:10
19	Legal Solutions and I'm the videographer. The court	09:10
20	reporter is Ashala Tylor. I'm not related to any	09:10
21	party in this action, nor am I financially	09:11
22	interested in the outcome.	09:11
23	Counsel and all present will now state	09:11
24	their appearances and affiliations for the record.	09:11
25	If there are any objections to proceeding, please	09:11
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1	state them at the time of your appearance, beginning	09:11
2	with the noticing attorney.	09:11
3	MS. WEAVER: Good morning, everybody. I'm	09:11
4	Lesley Weaver, co-lead counsel for plaintiffs and	09:11
5	from Bleichmar Fonti & Auld.	09:11
6	MS. DAVIS: Good morning. Anne Davis also	09:11
7	for plaintiffs, Bleichmar Fonti & Auld.	09:11
8	MR. MONTGOMERY: Matthew Montgomery for	09:11
9	plaintiffs, Bleichmar Fonti & Auld.	09:11
10	MR. MELAMED: Matt Melamed for plaintiffs,	09:11
11	Bleichmar Fonti & Auld.	09:11
12	MS. LAUFENBERG: Cari Laufenberg for	09:11
13	plaintiffs from Keller	09:11
14	THE REPORTER: I'm sorry, one more time,	09:11
15	please.	09:11
16	MS. LAUFENBERG: Cari Laufenberg for	09:11
17	plaintiffs from Keller Rohrback.	09:11
18	MR. KO: David Ko of Keller Rohrback also	09:11
19	on behalf of the plaintiffs. Good morning.	09:12
20	MR. LOESER: Good morning. Derek Loeser	09:12
21	from Keller Rohrback for plaintiffs.	09:12
22	MS. STEIN: Are you ready for defendant?	09:12
23	Deborah Stein from Gibson, Dunn on behalf	09:12
24	of defendant Facebook.	09:12
25	MS. CLARK: Martie Kutscher Clark from	09:12
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1	Gibson, Dunn also on behalf of Facebook.	09:12
2	MS. MUMM: Laura Mumm from Gibson, Dunn on	09:12
3	behalf of Facebook.	09:12
4	MR. CHEN: And this is Ian Chen. I am	09:12
5	in-house counsel for Facebook.	09:12
6	THE VIDEOGRAPHER: Would the court	09:12
7	reporter please swear in the witness.	09:12
8		09:13
9	KONSTANTINOS PAPAMILTIADIS,	09:13
10	being first duly sworn or affirmed to testify	09:13
11	to the truth, the whole truth, and nothing but	09:13
12	the truth, was examined and testified as follows:	09:13
13	THE REPORTER: Proceed, Counsel.	09:13
14	EXAMINATION	09:13
15	BY MS. WEAVER:	09:13
16	Q. Good morning. And thank you very much for	09:13
17	being here this morning and as we adjust to this new	09:13
18	process.	09:13
19	May I address you as K.P. throughout the	09:13
20	deposition or would you prefer Mr. Papamiltiadis?	09:13
21	A. I don't need to ask counsel's permission	09:13
22	to answer that question. I guess you can.	09:13
23	Q. All right. You come prepared.	09:13
24	I'm going to start by marking a couple of	09:13
25	exhibits, and I think that you've practiced with	09:13
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1	your counsel about how to pull those down. These	09:13
2	will be the deposition notice and Discovery Order	09:13
3	Number 9.	
4	So, first, we'll mark as Exhibit 1 the	09:13
5	notice for deposition in this action. And Ms. Davis	09:13
6	is going to be marking that right now and uploading	09:13
7	it.	09:13
8	(Exhibit 1 was marked for	09:13
9	identification and attached	09:13
10	hereto.)	09:13
11	MS. WEAVER: And then as Exhibit 2 she	09:13
12	will mark Discovery Order Number 9.	09:13
13	(Exhibit 2 was marked for	09:13
14	identification and attached	09:13
15	hereto.)	09:13
16	BY MS. WEAVER:	09:13
17	Q. And I'll direct you to the portions of	09:13
18	those exhibits I'd like you to review. Just let us	09:13
19	know when you have those.	09:14
20	MS. DAVIS: They are distributed now.	09:14
21	BY MS. WEAVER:	09:14
22	Q. Are you seeing those, K.P., in your	09:14
23	A. Not yes, I can see Exhibit 2 now.	09:14
24	Q. Okay. Let's start with 1.	09:14
25	A. I don't need to refresh I don't need to	09:14
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1	refresh the browser, right? It's automatic, so	09:14
2	MS. DAVIS: On my end it shows that 1 and	09:14
3	2 are distributing. 09	
4	THE VIDEOGRAPHER: And you do need to	09:14
5	refresh.	09:14
6	THE WITNESS: Okay.	09:15
7	MS. WEAVER: Yeah, I'm still just seeing	09:15
8	2.	09:15
9	THE WITNESS: Yeah, I can only see 2.	09:15
10	MS. WEAVER: Do you see it now?	09:15
11	THE WITNESS: Let me refresh as well.	09:15
12	Okay. Great. Do you want me to open	09:15
13	number 1?	09:15
14	BY MS. WEAVER:	09:15
15	Q. Yes, please. Thank you.	09:15
16	Do you recognize Exhibit 1?	09:15
17	A. Can I take a look?	09:15
18	Q. Yes, please.	09:15
19	MS. WEAVER: And, for the record,	09:15
20	Exhibit 1 is Plaintiffs' Amended Notice of	09:15
21	Deposition of Defendant Facebook, Inc. Pursuant to	09:15
22	Federal Rule of Civil Procedure 30(b)(6).	09:15
23	Q. K.P., I'll direct your attention just to	09:16
24	page 2 of the document where it says "Matters for	09:16
25	Testimony."	09:16
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1	A. Page 2 you said?	09:16
2	Q. Yes. Have you seen Exhibit 1 before?	09:16
3	A. I believe I have seen parts of that.	09:16
4	Q. Okay. So do you recognize it as the	09:16
5	notice for the deposition today?	09:16
6	A. Yes.	09:16
7	Q. And are you here today to testify on	09:16
8	behalf of Facebook?	09:16
9	A. Yes, I am.	09:16
10	Q. Okay. And are you here to testify	09:16
11	regarding the format, nature, and location of	09:16
12	discoverable user data as defined by Discovery Order	09:16
13	Number 9 as set forth on Topic 1?	09:17
14	A. I am not really sure I understand exactly	09:17
15	what that sentence means.	09:17
16	Q. Okay. Do you understand that you are	09:17
17	testifying in response to Topic 1?	09:17
18	MS. STEIN: Objection to form.	09:17
19	THE WITNESS: Topic 1 is sorry,	09:17
20	scrolling through the document.	09:17
21	MS. STEIN: I'll just state for the record	09:17
22	that we lodged objections to the description of the	09:17
23	categories in this notice, but, you know, the	09:17
24	witness is free to describe his understanding as to	09:17
25	what he's going to be testifying about today.	09:17
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1	BY MS. WEAVER:	09:17
2	Q. So I'll restate my question, K.P. Have	09:17
3	you reviewed Topic 1 before today?	09:17
4	A. I'm sorry, I'm having a hard time locating	09:17
5	where is the Topic 1.	09:17
6	Q. Okay. It's page 2 where it says "Matters	09:17
7	for Testimony" under Roman Numeral III.	09:17
8	MS. STEIN: Lesley, I think it may be	09:17
9	further down in the document.	09:18
10	MR. KO: Yeah, there's a couple page 2s.	09:18
11	K.P., it's page 6 of the PDF.	09:18
12	THE WITNESS: Okay. Sorry.	09:18
13	BY MS. WEAVER:	09:18
14	Q. My apologies.	09:18
15	A. I was like I was like, what am I	09:18
16	missing here?	09:18
17	Q. I apologize for that.	09:18
18	I see. Yes, it's page 2 of the exhibit.	09:18
19	A. Wait. Now, I'm getting confused. It's	09:18
20	page 2 so I have page 2 under Schedule A. I	09:18
21	have	09:18
22	Q. Right. Go to Schedule A and page 2 of	09:18
23	Schedule A.	09:18
24	A. Okay. Matters of testimony. That's what	09:18
25	you're looking at?	09:18
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1	Q. Exactly.	09:18
2	A. Okay.	09:18
3	Q. So do you see where it says "Topic 1: The	09:18
4	format, nature, and location of 'discoverable user	09:18
5	data' as defined by Discovery Order Number 9?" Do	09:18
6	you see that?	09:18
7	A. Yes, I do see that.	09:18
8	Q. Are you here today to testify regarding	09:18
9	that topic?	09:18
10	MS. STEIN: Objection to form.	09:18
11	THE WITNESS: Like I said	09:18
12	BY MS. WEAVER:	09:19
13	Q. You may answer.	09:19
14	A. I don't know what "format" means in that	09:19
15	context, or "location," but I'm here to tell you	09:19
16	about how Facebook has access to user data and how	09:19
17	this is made available to third parties if that's	09:19
18	relevant.	09:19
19	Q. Okay. Great. And are you here to discuss	09:19
20	data collected from a user's on-platform activity as	09:19
21	well as off-platform activity?	09:19
22	A. Yes.	09:19
23	Q. Okay. Great. As well as data inferred	09:19
24	from on- or off-platform activity?	09:19
25	A. That's correct.	09:19
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1	Q. Okay. Great.	09:19
2	What did you do to prepare for your	09:19
3	deposition today?	09:19
4	A. Well, part of my job is to you know,	09:19
5	and so my day-to-day job is to work on integrations	09:19
6	that have access to data, including user data. I	09:19
7	have been a Facebook employee for the last eight and	09:19
8	a half years, so this is my day-to-day job to some	09:19
9	extent. At the same time I had a number of sessions	09:19
10	with my counsels in preparation of this deposition	09:19
11	to make sure that I familiarize myself with certain	09:19
12	aspects related to this deposition.	09:20
13	Q. Great. And looking back at Exhibit 1, if	09:20
14	you turn to the next page, it says "Schedule B"	09:20
15	after the matters?	09:20
16	A. Yes.	09:20
17	Q. Do you see where it says Plaintiffs'	09:20
18	request for production of certain documents? There	09:20
19	are two categories of documents.	09:20
20	A. Yeah.	09:20
21	Q. Did you review any documents or consult	09:20
22	them to prepare for your deposition today?	09:20
23	A. I'm not sure they all documents. This is	09:20
24	something I can, you know, like suggest that I have	09:20
25	knowledge of.	09:20
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1	I reviewed certain documents, yes, but I	09:20
2	don't know if that was all of them.	09:20
3	Q. Okay. And what did you review?	09:20
4	A. I reviewed this document, for example. I	09:20
5	reviewed some data policies from the past 10 or so	09:20
6	years. I reviewed the contents of the download	09:20
7	information files. I reviewed developer	09:20
8	documentation. Different things.	09:21
9	Q. Okay. So when you say you reviewed data	09:21
10	policies, about how many did you review?	09:21
11	A. I can't remember. Five or six.	09:21
12	Q. Okay. And you said you also reviewed	09:21
13	developer documentation; is that right?	09:21
14	A. Yes.	09:21
15	Q. And what do you mean by that? What were	09:21
16	those documents?	09:21
17	A. And so any information with regards to our	09:21
18	APIs is fully documented on our website,	09:21
19	developers.facebook.com. And so while I spent a	09:21
20	considerable amount of my time there, I wanted to	09:21
21	familiarize myself with certain aspects of the API	09:21
22	that's maybe, you know, the item of your questions	09:21
23	here.	09:21
24	Q. Okay. And how many developer documents	09:21
25	did you review?	09:21
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1	A. I mean the developer website is 5,000	09:21
2	pages. I reviewed at least, you know, documentation	09:21
3	for the basic APIs.	09:21
4	Q. And when you say "the basic APIs," which	09:21
5	APIs do you mean?	09:22
6	A. The Graph API.	09:22
7	Q. Which version?	09:22
8	A. Well, there is only one version right now.	09:22
9	Q. You reviewed the current version?	09:22
10	A. The current version, yes.	09:22
11	Q. Okay. Did you understand that testimony	09:22
12	today was to be limited to the time period 2012 to	09:22
13	2017?	09:22
14	A. Yes, I do.	09:22
15	Q. Okay. So did you review the Graph API	09:22
16	documentation for that time period?	09:22
17	A. I don't need to. I understand.	09:22
18	Q. Because	09:22
19	A. Because I understand Version 1 of the API	09:22
20	as well as I do the current version.	09:22
21	Q. And how many developer documents did you	09:22
22	say you reviewed?	09:22
23	A. It's hard to quantify a number of pages.	09:22
24	They're web pages, right? So I don't know how you	09:22
25	want me to I may have reviewed like three or four	09:22
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-	1,00	2.1	00.00
1	different, you know,	, like web pages.	09:22
2	Q. So you wou	ald identify those by hyperlinks;	09:22
3	is that right?		09:22
4	A. Yes.		09:22
5	Q. Great. Ar	nd then did you say that you	09:22
6	reviewed a third cat	tegory of documents as well?	09:22
7	A. Yes, the o	contents of the downloaded	09:23
8	information file, th	ne fields included, more	09:23
9	specifically.		09:23
10	Q. And was th	nat a web page as well?	09:23
11	A. That was p	produced in the form of PDF.	09:23
12	Q. And did yo	ou review anything else?	09:23
13	A. I don't th	nink so. That's that's pretty	09:23
14	much it.		09:23
15	MS. WEAVER	R: Okay. So, Counsel, we	09:23
16	obviously already ha	ave requested production and	09:23
17	identification of th	nose documents. If they've	09:23
18	already been produce	ed we repeat the request.	09:23
19	Q. Do you hav	ve a current current CV?	09:23
20	A. You mean a	a resume?	09:23
21	Q. Yes.		09:23
22	A. Yes, I do.		09:23
23	Q. Okay. Gre	eat.	09:23
24	MS. WEAVER	R: We request that as well.	09:23
25	Q. Okay. You	ı joined Facebook in 2012; that's	09:23
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1	right?	09:23
2	A. Correct.	09:23
3	Q. And you're a current employee; is that	09:23
4	right?	09:24
5	A. Yes.	09:24
6	Q. So I hope you'll bear with us. We're	09:24
7	laying the foundation, and this is our first	09:24
8	deposition in this case, and so we need to establish	09:24
9	a few definitions that I'm sure will seem obvious to	09:24
10	you.	09:24
11	What is a Facebook user?	09:24
12	MS. STEIN: I'm just going to I'm just	09:24
13	going to, you know, object to form, and, you know,	09:24
14	the witness can testify as to his the	09:24
15	understanding he'll use today.	09:24
16	BY MS. WEAVER:	09:24
17	Q. So that means you may answer. Go ahead.	09:24
18	So what is a Facebook user?	09:24
19	A. So I'll give you the definition that I	09:24
20	have. I don't think it's anywhere documented. But	09:24
21	when we talk about the Facebook user, we are talking	09:24
22	about the the accounts that the human has created	09:24
23	that represents their presence on the Facebook	09:24
24	platform.	09:24
25	Q. And what is a Facebook platform?	09:24
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1	A. Historically that platform has evolved	09:25
2	from being just facebook.com to include Instagram,	09:25
3	Messenger, Oculus, and	09:25
4	Q. And so is the platform the website upon	09:25
5	which users engage? Is that fair to say?	09:25
6	A. It's not just the website because you most	09:25
7	likely use I don't know if you have a Facebook	09:25
8	account, but I assume that you may have used	09:25
9	Facebook on your Apple device or your Android	09:25
10	device. So it's not just the website. It used to	09:25
11	be just the website.	09:25
12	Q. So Facebook now offers products and	09:25
13	services like Facebook Messenger, Facebook Watch,	09:25
14	Facebook Portal, Facebook Business Tools and	09:25
15	Facebook Payments, correct? Is that correct?	09:25
16	A. That's	09:25
17	MS. STEIN: Object to form.	09:25
18	THE WITNESS: I think you just listed some	09:25
19	of our products, not every single product.	09:25
20	BY MS. WEAVER:	09:25
21	Q. Okay. For the products that I listed, do	09:25
22	they all collect data from users?	09:25
23	A. I mean depends how you define "collect."	09:26
24	Q. What does what does collect mean to	09:26
25	you?	09:26
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1	A. If we are talking about creating an	09:26
2	account which requires the user to enter a username,	09:26
3	passwords, first name, last name, I don't think	09:26
4	that's possible in every single one of those	09:26
5	products. I don't know that you can create an	09:26
6	account on Portal, for example.	09:26
7	Q. Okay. But regardless of whether or not	09:26
8	you create an account, do all of those services	09:26
9	collect data about Facebook users?	09:26
10	MS. STEIN: Objection to form and object	09:26
11	to the extent that some of those products may not be	09:26
12	from the relevant time period.	09:26
13	THE WITNESS: Yeah.	09:26
14	BY MS. WEAVER:	09:26
15	Q. You may answer.	09:26
16	A. I mean that's that's probably a good	09:26
17	point. The products that you're talking about have	09:26
18	not been available to users before 2017, but I'll	09:26
19	answer the question by	09:26
20	Q. Thank you.	09:26
21	A saying it depends. In most cases we	09:26
22	are talking about activity data and not	09:27
23	Q. What is the primary objective of the	09:27
24	platform when it was originally created?	09:27
25	A. By "platform" you mean Facebook or the	09:27
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1	Facebook developer platform?	09:27
2	Q. Facebook well, let's start with	09:27
3	Facebook and then talk about the Facebook developer	09:27
4	platform.	09:27
5	MS. STEIN: Objection to form and beyond	09:27
6	the scope of what this witness is authorized to	09:27
7	testify about on behalf of the company.	09:27
8	But you can testify as to your	09:27
9	understanding just for foundation.	09:27
10	BY MS. WEAVER:	09:27
11	Q. I'll ask the question again.	09:27
12	What was the primary purpose of the	09:27
13	Facebook platform when it was created, the website?	09:27
14	A. So Facebook, the the Facebook product,	09:27
15	which also is referred as platform, is or was	09:27
16	always meant to allow people to connect with each	09:27
17	other and create a more open and connected world.	09:27
18	Q. Thank you.	09:27
19	A. Which would help the value of community	09:27
20	and we build a service to basically help people	09:28
21	connect.	09:28
22	Q. So it was meant to allow people to connect	09:28
23	socially as well; is that fair?	09:28
24	A. No, that's	09:28
25	MS. STEIN: Object to form.	09:28
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1	THE WITNESS: I mean I don't know of any	09:28
2	other connection.	09:28
3	BY MS. WEAVER:	09:28
4	Q. Okay. And what was the purpose of the	09:28
5	Facebook developer platform, in your understanding?	09:28
6	A. The Facebook develop	09:28
7	MS. STEIN: I'm going to object here.	09:28
8	This, you know, is both outside the scope of the	09:28
9	deposition and what this witness is authorized to	09:28
10	testify about. And dating dating back	09:28
11	MS. WEAVER: I understand your objection.	09:28
12	You can either instruct him not to answer or allow	09:28
13	him to answer.	09:28
14	MS. STEIN: I will allow him to answer to	09:28
15	his understanding.	09:28
16	BY MS. WEAVER:	09:28
17	Q. So you referenced the Facebook developer	09:28
18	platform earlier. What's your understanding of its	09:28
19	purpose when it was created?	09:28
20	A. And so our mission to you know, to	09:28
21	connect the world and bring the whole world closer	09:28
22	together is not something that we could do on our	09:28
23	own resources, you know. So we built the platform,	09:29
24	like a lot of technology companies have done, to	09:29
25	allow third parties to build on top of our platform	09:29
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## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 25 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1 2	and bring capabilities and experiences for people to connect on their surfaces in many ways.	09:29
2	connect on their surfaces in many ways.	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	09:29
3	Q. And is it fair to say that Facebook has	09:29
4	three constituents then: Its business partners,	09:29
5	developer partners, and users?	09:29
6	MS. STEIN: Objection to form.	09:29
7	THE WITNESS: I'm not sure I understand	09:29
8	exactly the definition of developer sorry,	09:29
9	business partner. Because, you know, like developer	09:29
10	partners are also businesses. So I could probably	09:29
11	put them in the same bucket.	09:29
12	BY MS. WEAVER:	09:29
13	Q. I just didn't quite understand your answer	09:29
14	there, and my	09:29
15	A. So I so I cannot really, you know, like	09:29
16	give a distinction between business partners and	09:29
17	developer partners. Developer partners are also	09:29
18	businesses.	09:30
19	Q. Got it. So who do you understand to be	09:30
20	encompassed in the business partners?	09:30
21	A. Probably	09:30
22	MS. STEIN: Objection to form.	09:30
23	THE WITNESS: Sorry.	09:30
24	BY MS. WEAVER:	09:30
25	Q. You may answer.	09:30
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1	A. A business partner is probably anybody	09:30
2	that is not a developer partner, I would imagine, in	09:30
3	that definition.	09:30
4	Q. Can you think of categories of business	09:30
5	partners that would be included in that? Would it	09:30
6	include data brokers, for example?	09:30
7	MS. STEIN: Objection to form.	09:30
8	THE WITNESS: I'm not sure what you're	09:30
9	referring to, data brokers. But I can I can give	09:30
10	you a list of different partners in case that helps	09:30
11	answer the question.	09:30
12	BY MS. WEAVER:	09:30
13	Q. Yes, that would be helpful, please.	09:30
14	A. So historically Facebook has engaged with	09:30
15	maybe four or five categories of so-called partners.	09:30
16	One category of them is device manufacturers and	09:30
17	mobile operators. They help us build the within	09:30
18	that period of time that I think you're talking	09:31
19	about, they help us build Facebook-like experiences	09:31
20	in order to reach a wider audience.	09:31
21	A second category is what we call	09:31
22	developer partners. Those are third-party software	09:31
23	companies that have access to our APIs and they	09:31
24	build experience for both consumers and other	09:31
25	businesses.	09:31
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## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 27 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	A third category is anybody that is a	09:31
2	business that is publishing on our platform, from	09:31
3	news companies to NZOs, the UNICEFs of this world.	09:31
4	The WHO is using our platform to make sure that	09:31
5	people have accurate information about COVID; we	09:31
6	would consider them to be a partner of some sort.	09:31
7	And a fourth category would be what, I	09:31
8	think, other comments may call suppliers. We we	09:31
9	have partners in place with companies like	09:31
10	Salesforce because we need to maintain a record of	09:31
11	our, you know, partners. We work very closely with	09:32
12	Workday because that's where our employee data is	09:32
13	stored. My salary and everything related to me	09:32
14	somehow is stored to like this. We would still call	09:32
15	them or refer to them as a business partner in that	09:32
16	sense.	09:32
17	So those broadly are the four categories	09:32
18	of partners that I can I'm not sure if that	09:32
19	answers your question.	09:32
20	Q. That's very helpful. No, thank you very	09:32
21	much.	09:32
22	And so, again, this is rudimentary, but	09:32
23	what do you understand "data" to mean?	09:32
24	And let me back up and say every time I	09:32
25	ask you in this deposition I refer to "you,"	09:32
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1	because you're testifying on behalf of Facebook, I	09:32
2	mean Facebook. Is that fair?	09:32
3	A. (Unreportable response.)	09:32
4	Q. Do you have what is your general	09:32
5	understanding of what data is?	09:32
6	A. I'm waiting for my counsel. She is not	09:32
7	talking so I can answer, I guess.	09:32
8	Q. Yes, exactly.	09:32
9	A. There is a little bit of lag there is a	09:32
10	little bit of lag. Sorry. I just want to make sure	09:32
11	I don't talk over about you everybody.	09:33
12	Data is information.	09:33
13	Q. Okay. And content and code and materials	09:33
14	as well are all information. Is that all data, in	09:33
15	your understanding?	09:33
16	A. Code is not really information.	09:33
17	Information in the code, if you are an engineer,	09:33
18	yes. But not in a for everybody else.	09:33
19	Q. Great. Does Facebook collect information	09:33
20	about how users use Facebook's products?	09:33
21	A. It's kind of broad statement, but we do	09:33
22	have an understanding of when people use our	09:33
23	services, yes.	09:33
24	Q. Okay. So Facebook collects and so	09:33
25	going forward, when we say "information," we may	09:33
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1	also mean data and we can ask for clarification.	09:33
2	But, in general, that's the same concept for	09:33
3	purposes of this deposition; is that fair?	09:33
4	A. Yeah. I just want to make sure that, you	09:34
5	know, like we don't use those terms very loosely,	09:34
6	because sometime the information that we are talking	09:34
7	about is activity information and not necessarily	09:34
8	user data.	09:34
9	Q. I understand. So we'll just clarify so	09:34
10	that we have our meanings correctly.	09:34
11	So does Facebook collect information about	09:34
12	when users are using and have last used products,	09:34
13	for example?	09:34
14	A. Any product, no. The Facebook products,	09:34
15	yes.	09:34
16	Q. Okay. And Facebook collects information	09:34
17	about posts and videos and contents that they	09:34
18	review; is that right?	09:34
19	MS. STEIN: I'm just going sorry. I	09:34
20	just want to so	09:34
21	MS. WEAVER: Please don't coach the	09:34
22	witness. Just state an objection.	09:34
23	MS. STEIN: No, Lesley, this is to you	09:34
24	actually. Just so you're framing your questions in	09:34
25	the present, but the time period is 2012 to 2017.	09:34
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1	Do you want to have some sort of agreement so that	09:34
2	that's	09:34
3	MS. WEAVER: Sure.	09:34
4	MS. STEIN: You know what I'm saying? I	09:34
5	just want to have something on the record. I have a	09:35
6	feeling	09:35
7	MS. WEAVER: That is fair.	09:35
8	MS. STEIN: it might go in and out.	09:35
9	But I don't coach witnesses, so you know, for the	09:35
10	record.	09:35
11	MS. WEAVER: Great.	09:35
12	Q. So for purposes of this deposition, K.P.,	09:35
13	we're going to be referring to the time period 2012	09:35
14	to 2017. You can assume that. If you need to	09:35
15	clarify a question, let's just clarify it. Is	09:35
16	that is that fair? Okay.	09:35
17	A. That's fine by me.	09:35
18	But can you repeat the question?	09:35
19	Q. Yeah, no problem.	09:35
20	A. Thanks.	09:35
21	Q. So does Facebook also log when users are	09:35
22	using and have last used Facebook's products?	09:35
23	A. Yes, we would know when you open them up	09:35
24	and when you close it.	09:35
25	Q. And also what posts, videos, and other	09:35
	Page	e 29

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 31 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	contents users view?	09:35
2	A. Yes, we would.	09:35
3	Q. Okay. And do you collect information	09:35
4	about how users' use features like the camera,	09:36
5	Facebook camera?	09:36
6	A. I don't know. I don't think so. Unless	09:36
7	it's within the app itself.	09:36
8	Q. Okay. Does Facebook analyze content	09:36
9	information about users?	09:36
10	A. I'm not sure I understand the question.	09:36
11	What do you mean "content"?	09:36
12	Q. Well, I'm just trying to introduce a	09:36
13	couple of topics here, and I'm actually working off	09:36
14	the congressional testimony that Facebook submitted	09:36
15	in 2018.	09:36
16	So it says "We also receive and analyze	09:36
17	content, communications and information that other	09:36
18	people provide when they use our products."	09:36
19	So I'm just asking you, is it true that	09:36
20	Facebook receives and analyzes content,	09:36
21	communications and information that other people	09:36
22	provide?	09:36
23	A. By "other people," I guess we mean users?	09:36
24	Q. Yes.	09:36
25	A. Okay. I think there's definitely some	09:36
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## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 32 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	truth to that statement. I mean just to give you an	09:37
2	idea, if you come to Facebook and you post something	09:37
3	that is against our policies, if if it's an	09:37
4	explicit, you know, something that promotes violence	09:37
5	or something like that, we have a responsibility to	09:37
6	take it down. So in that sense we do analyze that	09:37
7	content for the purposes of keeping our community	09:37
8	safe.	09:37
9	Q. Okay. Is it true that Facebook collects	09:37
10	information about the computers, phones, connected	09:37
11	TVs and other web-connected devices that users use?	09:37
12	A. Throughout the the activity we would	09:37
13	collect the IP address. If it's connected or if	09:37
14	the user is connected through a mobile phone, we	09:37
15	probably collect information about the carrier. If	09:37
16	they are on a desktop, we collect information about	09:37
17	their Internet service provider, yes, the browser	09:37
18	version, things like this.	09:37
19	Q. Okay. And does Facebook use the	09:37
20	information collected about users' use of their	09:37
21	products to better personalize the content,	09:38
22	including ads or features they see?	09:38
23	A. Yes.	09:38
24	Q. Okay. And and so also do does	09:38
25	Facebook track that information across devices that	09:38
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1	users use?	09:38
2	MS. STEIN: Object to the form.	09:38
3	THE WITNESS: I'm not sure I understand	09:38
4	what "tracking" means in that sense.	09:38
5	BY MS. WEAVER:	09:38
6	Q. So I'm just again reading to you.	09:38
7	"We use information collected about users'	09:38
8	use of our products on their phone to better	09:38
9	personalize the content they see when they use our	09:38
10	products on another device such as their laptop or	09:38
11	tablet, or to measure whether they took an action in	09:38
12	response to an ad we showed them on their phone on a	09:38
13	different device."	09:38
14	Is that a true statement?	09:38
15	A. Yes, that's a true statement.	09:38
16	Q. Okay. Does that include battery level?	09:38
17	A. I don't think so.	09:38
18	Q. Is it a true statement that Facebook	09:38
19	obtains information from these devices which	09:38
20	includes information about the operating system,	09:38
21	hardware and software versions, battery level,	09:39
22	signal strength, available storage space, browser	09:39
23	type, app and file names and types, and plug-ins?	09:39
24	Is that a true statement?	09:39
25	A. There are certain things there that I	09:39
	P	age 32

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1	don't think we have any access to. But there are	09:39
2	certain others like the browser version like I	09:39
3	mentioned before that we do.	09:39
4	Q. Again, this is from Congress's	09:39
5	congressional written testimony.	09:39
6	Does Facebook collect information about	09:39
7	operations and behaviors performed on devices such	09:39
8	as whether a window is foregrounded or backgrounded	09:39
9	or mouse movements?	09:39
10	MS. STEIN: Objection to form.	09:39
11	THE WITNESS: I don't know.	09:39
12	BY MS. WEAVER:	09:39
13	Q. Does Facebook collect that information?	09:39
14	A. I don't know.	09:39
15	Q. You don't know?	09:39
16	A. I don't know.	09:39
17	Q. Okay. Does Facebook collect identifiers	09:39
18	about users?	09:39
19	A. Can you explain what you mean by	09:39
20	"identifiers"?	09:39
21	Q. Yeah. What is an identifier? Do you	09:39
22	know?	09:40
23	A. Well, I mean the users are locked in when	09:40
24	they are on Facebook, so we already have an	09:40
25	understanding of who the users are. Is that an	09:40
	Pa	ge 33

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 35 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	identifier?	09:40
2	Q. Okay. Is there something called a	09:40
3	Facebook identifier?	09:40
4	A. There's a Facebook identity.	09:40
5	Q. Do you know what a Facebook identifier is,	09:40
6	a user identifier?	09:40
7	A. No.	09:40
8	Q. Okay. So is this statement true:	09:40
9	Facebook collects information about unique	09:40
10	identifiers, device IDs and other identifiers, such	09:40
11	as from games, apps or accounts users use and family	09:40
12	device identifiers? Does Facebook collect that	09:40
13	information?	09:40
14	A. I mean we have an understanding of people	09:40
15	that log in on third-party apps using the Facebook	09:40
16	identity, and we have an ID for that, yes.	09:40
17	Q. And, for example, Apple has its own	09:40
18	identifier; isn't that true?	09:40
19	A. Yes, we have an Apple ID, I guess.	09:40
20	Q. And there's an Android ID as well; is that	09:41
21	right?	09:41
22	A. Yes.	09:41
23	Q. And a Google ID?	09:41
24	A. It's probably the same as Android, yes.	09:41
25	Q. Okay. And so does Facebook use those	09:41
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1	identifiers to collect information about people?	09:41
2	A. Those specific ones, no.	09:41
3	Q. Okay. Do they use they don't use	09:41
4	those are you are you testifying today that	09:41
5	Facebook does not use the Apple identifier to	09:41
6	collect information about people?	09:41
7	A. We don't.	09:41
8	Q. Okay.	09:41
9	A. How can we?	09:41
10	Q. Okay.	09:41
11	A. It's impossible.	09:41
12	Q. Does Facebook collect information about	09:41
13	Bluetooth signals and information about nearby Wi-Fi	09:41
14	access points, beacons and cell towers?	09:41
15	A. I believe we do, yes.	09:41
16	Q. Does Facebook collect data from device	09:41
17	settings, information that users allow us let me	09:41
18	try that. Do they collect data from device settings	09:41
19	when users turn them on, such as their GPS location,	09:41
20	camera or photos?	09:41
21	A. Some of that would require consent, but I	09:42
22	think, broadly speaking, if there is consent, yes,	09:42
23	we do collect.	09:42
24	Q. For these other categories that we have	09:42
25	been discussing, does Facebook collect that data	09:42
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1	without consent?	09:42
2	MS. STEIN: Object to form.	09:42
3	THE WITNESS: Sorry, I didn't hear the	09:42
4	objection.	09:42
5	BY MS. WEAVER:	09:42
6	Q. You said that for these kinds of data you	09:42
7	sometimes had to obtain consent. Are there is	09:42
8	there other kinds of data that Facebook collects	09:42
9	without consent?	09:42
10	A. No, no, no.	09:42
11	Q. All right.	09:42
12	A. I should probably say that's from	09:42
13	everything. But it seems that there was an omission	09:42
14	from my part. There's no way we can collect any of	09:42
15	that data without users' consent.	09:42
16	Q. Okay. Does Facebook collect information	09:42
17	about users' connection speed and other devices that	09:42
18	are nearby?	09:42
19	A. I don't know about the other devices, but	09:42
20	the connection speed is something that we would log,	09:42
21	yes.	09:42
22	Q. Okay. Well, is it a true statement that	09:42
23	"Facebook collects information about other devices	09:42
24	that are nearby or on their network so we can do	09:42
25	things like help users stream a video from their	09:43
	Pa	ge 36

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1	phone to their TV"? Is that a true statement?	09:43
2	A. Yes, that's a true statement.	09:43
3	Q. Okay. Does Facebook also collect cookie	09:43
4	data?	09:43
5	A. We have access to certain cookies, yes.	09:43
6	Q. Okay. So it's a true statement that	09:43
7	Facebook collects data from cookies stored on a	09:43
8	users' device, including cookie IDs and settings; is	09:43
9	that right?	09:43
10	A. Yes.	09:43
11	MS. STEIN: Object to form.	09:43
12	BY MS. WEAVER:	09:43
13	Q. Do you know what a Facebook pixel is?	09:43
14	A. Yes, I do.	09:43
15	Q. What is a Facebook pixel?	09:43
16	A. How okay. Let me try to make it plain	09:43
17	and simple.	09:43
18	On a third-party website there is one	09:44
19	pixel which goes back to the old days of how, you	09:44
20	know, like the computer screens used to work. This	09:44
21	Facebook owns, and whenever someone visits that	09:44
22	website, that pixel will fire an event that will	09:44
23	effectively confirm to Facebook that a user has	09:44
24	visited that website.	09:44
25	Q. So do pixels uniquely identify users of	09:44
	Page	37

# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 39 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	the platform on and off the platform?	09:44
2	A. No.	09:44
3	Q. What do they identify?	09:44
4	A. The pixels identify someone visiting the	09:44
5	website. It doesn't identify the user.	09:44
6	Q. So is it accurate to say that where a	09:44
7	website has embedded a Facebook pixel, Facebook	09:44
8	collects data about user actions on that website,	09:44
9	even if the user is not signed in to Facebook,	09:44
10	right?	09:44
11	A. And so let's say you go to CNN.com I	09:44
12	don't know if that's your media provider of choice,	09:44
13	but for the sake of the argument and there is a	09:44
14	Facebook pixel embedded. That will fire an event	09:45
15	that will basically say user X has visited CNN.com.	09:45
16	And that information will come to Facebook, and	09:45
17	Facebook will actually identify whether it was K.P.	09:45
18	or Lesley.	09:45
19	Q. And does data collected from pixels	09:45
20	include items placed in shopping carts or purchases	09:45
21	or which pages are viewed?	09:45
22	MS. STEIN: Objection to form.	09:45
23	THE WITNESS: Can we break it down? It's	09:45
24	huge. Maybe. Depends on whether the third party	09:45
25	has implemented the pixel on different pages.	09:45
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# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 40 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Things added to the cart. Not the things	09:45
2	that have been added to the cart but potentially the	09:45
3	action taken. It's not relevant for for the	09:45
4	third party to share that information but share the	09:45
5	action.	09:45
6	What was the third one?	09:45
7	BY MS. WEAVER:	09:45
8	Q. I believe it was which pages are viewed.	09:45
9	A. Yes. So, like I said, if there is a pixel	09:46
10	embedded on different pages, we would have an	09:46
11	understanding that it wasn't just the home page but	09:46
12	it was, say, the landing page, or it was a product	09:46
13	page, better say, or the cart page, or something	09:46
14	like that.	09:46
15	Q. Okay. What is the like button?	09:46
16	A. It's a plug-in.	09:46
17	Q. And what does that mean?	09:46
18	A. It's something that allows the user to	09:46
19	take action that will be shared on Facebook on a	09:46
20	third-party website.	09:46
21	Q. And so in a sense is a like providing	09:46
22	information about whether a user approves or likes	09:46
23	an object that it is engaging with?	09:46
24	A. Yeah, if you like if you click on the	09:46
25	like button when you are again, on a third-party	09:46
	Ра	ge 39

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1	website, and that suggests that you're probably	09:46
2	liking that story that you just read.	09:47
3	Q. Okay. So there's some content provided by	09:47
4	the like button; is that right?	09:47
5	A. Well, the content is provided by the third	09:47
6	party. The like button captures your affinity with	09:47
7	that company.	09:47
8	Q. Understood.	09:47
9	You mentioned APIs earlier. Could you	09:47
10	just for the record define an API and explain how it	09:47
11	works.	09:47
12	A. An API is basically an industry-wide	09:47
13	standard that allows two applications to communicate	09:47
14	with each other. And what I mean by applications,	09:47
15	I'm talking about pieces of software.	09:47
16	Q. Okay. And what is an SDK?	09:47
17	A. An SDK is a way to, you know, access the	09:47
18	APIs without necessarily writing code that would	09:47
19	make it a little bit harder.	09:47
20	So, in other words, I guess, what I'm	09:47
21	trying to say is that the the SDK is a piece of	09:47
22	software that would allow a third-party developer to	09:48
23	access the Facebook APIs through the SDK, whereas in	09:48
24	the old days if you want to really access the API	09:48
25	you have to double the amount of code or maybe even	09:48
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# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 42 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	more to access the same AP.	09:48
2	Q. Got it. And what are Facebook business	09:48
3	tools?	09:48
4	A. It's a very broad definition, but it	09:48
5	refers to the different tools that businesses use to	09:48
6	monitor their presence manage on the Facebook	09:48
7	platform.	09:48
8	Q. Okay. So is it a true statement that	09:48
9	advertisers, app developers, and publishers can send	09:48
10	Facebook information through Facebook business tools	09:48
11	they use, including social plug-ins, like the like	09:48
12	button, Facebook log-in, Facebook's APIs and SDKs or	09:48
13	the Facebook pixel? Is that a true statement?	09:48
14	A. That that's correct.	09:48
15	Q. And you referred to partners earlier. Do	09:49
16	you recall that discussion?	09:49
17	A. Yes.	09:49
18	Q. Okay. So going forward in the deposition	09:49
19	we'll use your definition of partners. Is that	09:49
20	fair?	09:49
21	A. That's okay by me.	09:49
22	Q. So do partners provide information about	09:49
23	users' activities off Facebook, including	09:49
24	information about their device, websites they visit,	09:49
25	purchases they make, the ads they see and how they	09:49
	Pag	e 41

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1	use their services whether or not they have a	09:49
2	Facebook account or are logged in to Facebook? Is	09:49
3	that a true statement?	09:49
4	MS. STEIN: Objection to form.	09:49
5	THE WITNESS: This is a very broad	09:49
6	statement. So if you want me to answer I think we	09:49
7	need to break it down a little bit.	09:49
8	BY MS. WEAVER:	09:49
9	Q. Great, go ahead. So is it true that	09:49
10	partners provide information about users' activities	09:49
11	off Facebook?	09:49
12	A. Again	09:49
13	MS. STEIN: Objection to form.	09:49
14	THE WITNESS: Okay. Based on my	09:49
15	definition of what a partner is, we're only talking	09:50
16	about a subset for those partners that use any of	09:50
17	the products that you just listed before. They	09:50
18	either use the pixel or the SDK or the to the API	09:50
19	or they advertise on Facebook.	09:50
20	Okay. So for those four scenarios,	09:50
21	anybody, any business out there that uses any of	09:50
22	those products, they do send some information back	09:50
23	to Facebook.	09:50
24	BY MS. WEAVER:	09:50
25	Q. Okay. And that can include information	09:50
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# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 44 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	about users' devices; is that right?	09:50
2	A. I'm not sure about the pixel or the API	09:50
3	or the SDK, most likely, yes, in certain	09:50
4	scenarios.	09:50
5	Q. Okay. Do partners those partners in	09:50
6	general provide information about websites users'	09:50
7	visits and purchases they make?	09:50
8	MS. STEIN: Objection to form.	09:50
9	THE WITNESS: Okay. So that would mean	09:50
10	that they use the pixel and they would have to fire	09:50
11	an event when the user visits their website, and	09:51
12	that means that they will do that after the user has	09:51
13	probably seen an ad and they will probably and	09:51
14	it's up to them about how they're going to implement	09:51
15	it if the user decides to buy something.	09:51
16	But that's not necessarily how the whole	09:51
17	thing works. This is just one specific	09:51
18	implementation.	09:51
19	BY MS. WEAVER:	09:51
20	Q. Yeah, I'm just asking at a very high	09:51
21	level. It's a pretty simple question.	09:51
22	A. Okay. At a very high level, if you want	09:51
23	to, you know, like talk about how the systems work,	09:51
24	if you are an advertiser on Facebook, you want to	09:51
25	make sure that your dollars are well spent. And	09:51
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# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 45 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	what you would do is implement the pixels because	09:51
2	you want to track the performance of your ad	09:51
3	campaigns. And how do you track the performance of	09:51
4	your ad campaigns? It's a function of what business	09:51
5	you're running.	09:51
6	If you're in the service provider, you	09:51
7	would probably fire a pixel when somebody makes an	09:51
8	appointment, or, you know, books a test drive. If	09:51
9	you are a product company or a commerce side and you	09:51
10	are selling products, you'll fire a pixel when	09:52
11	someone completes a purchase. And like that you can	09:52
12	track the investment that you made on your ad	09:52
13	campaign.	09:52
14	Q. Let's talk, for example, about a game	09:52
15	developer. If a game developer has a Facebook user	09:52
16	on it, do they use Facebook's API to tell Facebook	09:52
17	what games a user plays, for example?	09:52
18	MS. STEIN: Objection to form.	09:52
19	THE WITNESS: Okay. This is again a very	09:52
20	broad scenario. But let me spell it out, right?	09:52
21	So let's say I want to play Word With	09:52
22	Friends. I have options. I can log in with	09:52
23	Facebook or I can create an account directly.	09:52
24	If I log in with Facebook, then, you know,	09:52
25	the developer will request my consent to access	09:52
	F	age 44

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1	certain pieces of my identity that will come from	09:52
2	Facebook, like my first name, like my last name,	09:52
3	like my profile picture. To the extent that I	09:52
4	provide consent to that developer, the developer	09:53
5	will have access to that information.	09:53
6	From then on every time I log in to play	09:53
7	Words with Friends, Facebook will have to reconfirm	09:53
8	the identity of that user and make sure that the	09:53
9	user remains logged in with Words with Friends.	09:53
10	BY MS. WEAVER:	09:53
11	Q. Okay. So, again, this is from the	09:53
12	congressional testimony, and I just want to	09:53
13	understand it. It says "Facebook also receives	09:53
14	information about users' online and offline actions	09:53
15	and purchaser purchases from third-party data	09:53
16	providers who have the rights to provide us with	09:53
17	users' information."	09:53
18	Do you agree with that sentence?	09:53
19	MS. STEIN: Object to form.	09:53
20	BY MS. WEAVER:	09:53
21	Q. Is that correct?	09:53
22	A. Well, if it's on the congressional and	09:53
23	it's validated by Facebook, I would say, yes, I	09:53
24	agree.	09:53
25	Q. Okay. So do the third-party data	09:53
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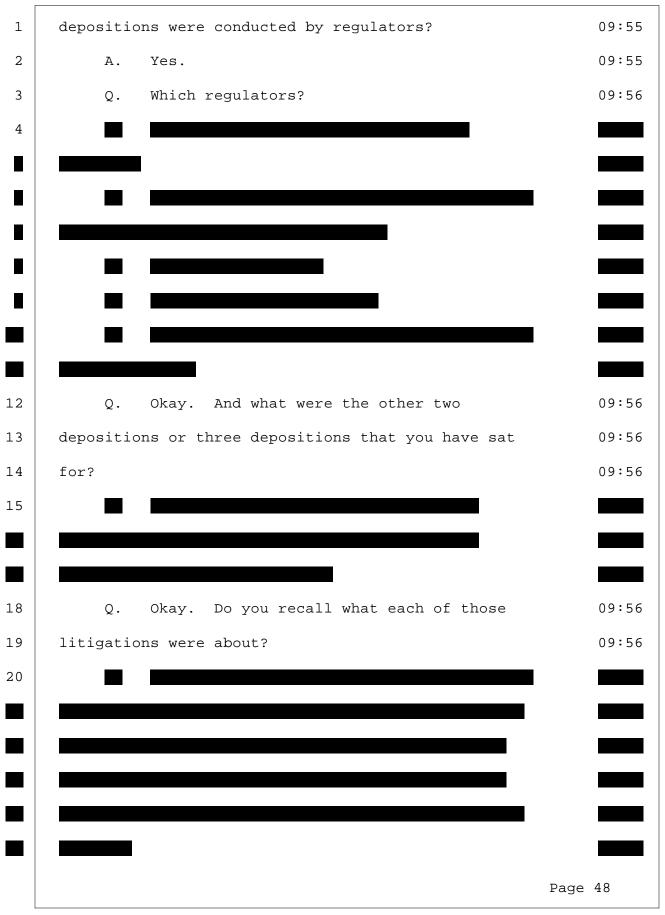
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 47 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	providers provide Facebook information about the	09:53
2	activities on the third-parties' apps or sites at a	09:53
3	high level?	09:54
4	A. I think at a high level, it would be	09:54
5	the same business that would provide information,	09:54
6	not anything Facebook.	09:54
7	Q. Got it.	09:54
8	MS. WEAVER: Okay. I'll mark now as	09:54
9	Exhibit 2 or I say I will, but I am asking my	09:54
10		
13	Q. And while we're waiting, have you been	09:54
14	deposed before?	09:54
15	A. Yes.	09:54
16	Q. Okay. So I'm asking partly just if you	09:54
17	know what a Bates number is.	09:54
18	There are documents and there actually	09:54
19	was a man named Bates in 1899 who created a stamp	09:54
20	that he put on these documents in the lower	09:54
21	right-hand corner. So it's just a way of	09:54
22	consecutively numbering hard copy documents that	09:54
23	would probably be obsolete in your world, but that	09:55
24	is what I just read into the record.	09:55
25	A. Okay.	09:55
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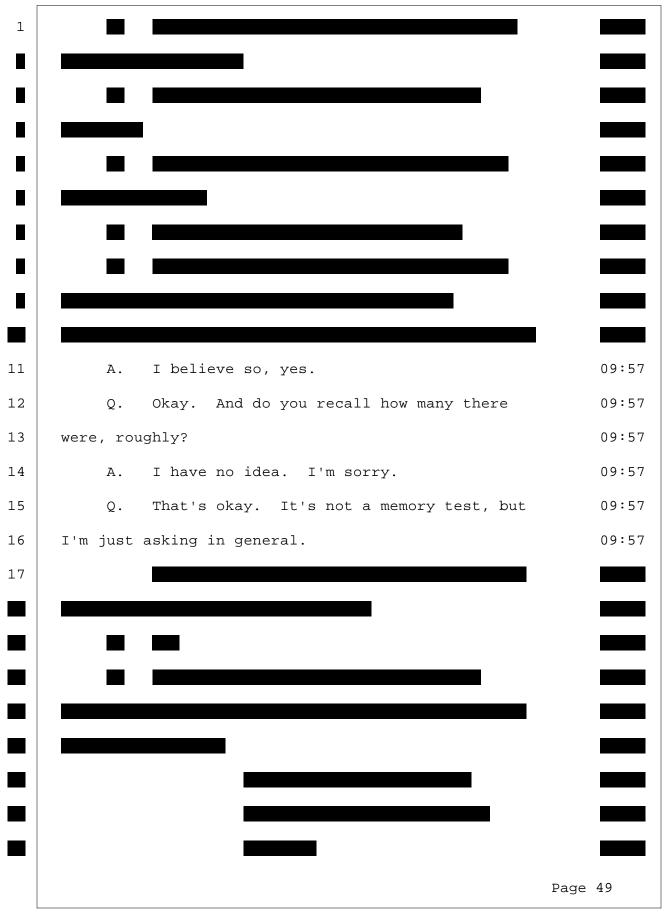
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 48 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Q. Have you testified on behalf of Facebook	09:55
2	before?	09:55
3	A. No.	09:55
4	Q. Okay. How many times have you been	09:55
5	deposed?	09:55
6	A. This my fourth one.	09:55
7	Q. And were you deposed on topics similar to	09:55
8	the topics we're discussing today?	09:55
9	MS. STEIN: Objection to form.	09:55
10	THE WITNESS: I've been deposed and	09:55
11	discussing about various topics. I don't know where	09:55
12	this is going to head to	09:55
13	BY MS. WEAVER:	09:55
14	Q. Okay.	09:55
15	A so I can answer that question at the	09:55
16	end of the day.	09:55
17	Q. Fair enough. Were those depositions in	09:55
18	relation to your employment at Facebook?	09:55
19	A. Yes.	09:55
20	Q. Okay. And did they occur in the last four	09:55
21	years?	09:55
22	A. I can't remember the first one, but I	09:55
23	assume it would be in the last four years, but they	09:55
24	are the last two years.	09:55
25	Q. Okay. Do you know if any of those	09:55
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1	BY MS. WE	EAVER:	09:57	
2	Q.	Do you have an Exhibit 3?	09:57	
3	Α.	So we're going to 3?	09:57	
4	Q.	We are going to 3.	09:58	
5	Α.	Okay. I don't see it yet.	09:58	
6	Q.	I think you might need to refresh.	09:58	
7		Do you have Exhibit 3 yet?	09:58	
8	Α.	Yes.	09:58	
9	Q.	Okay.	09:58	
10				
14	Q.	Okay. Did	09:58	
15		MS. STEIN: Why don't you give the witness	09:58	
16	an opport	cunity to review the document.	09:58	
17		MS. WEAVER: Okay. Thanks, Deb. You were	09:58	
18	about to	get in trouble.	09:58	
19				
25				
			Page 50	

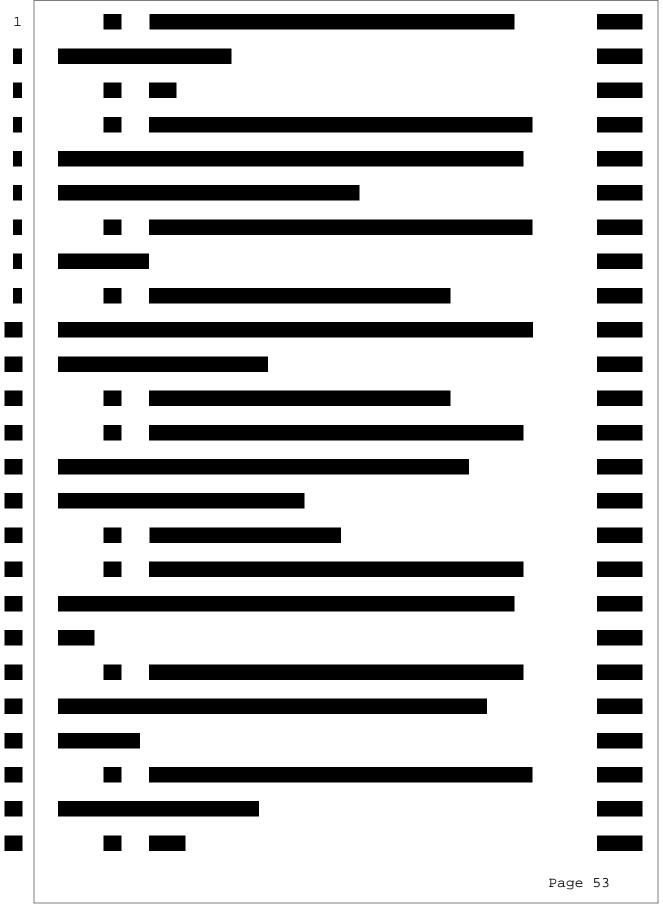
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 52 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	BY MS. W	EAVER:	09:59
2	Q.	Okay. And when did you last see them?	09:59
3	А.	Either yesterday or Friday.	09:59
4	Q.	When did you first see them?	09:59
5	А.	Maybe Friday.	09:59
6	Q.	Okay. You hadn't seen them before Friday?	09:59
7	А.	No.	09:59
8	Q.	Is that right? Okay.	09:59
9			
17	Q.	Okay. And let me back up again. This is	09:59
18	foundati	onal. Do people communicate by email at	09:59
19	Facebook	?	09:59
20	Α.	It's one of the ways to communicate, yes.	09:59
21	Q.	How else do people communicate in the	09:59
22	course o	f doing business at Facebook?	09:59
23	Α.	We use a version of the product that is	09:59
24	designed	for the business world called Workplace.	09:59
25	We use a	version of our Messenger product, which is	10:00
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1	also an example, a device called Workset. We use	10:00
2	emails. We use Zoom. We use other	10:00
3	videoconferencing facilities. We use our telephones	10:00
4	to call each other. Different ways.	10:00
5	Q. And people text as well; is that right?	10:00
6	A. We don't like text messaging. We have our	10:00
7	own messaging apps.	10:00
8	Q. Just out of curiosity, is the Facebook	10:00
9	Messenger that people that work at Facebook use, is	10:00
10	that different than the Facebook Messenger that	10:00
11	users on the platform use, or is it the same?	10:00
12	A. I mean I use Messenger the same way you	10:00
13	would use it. But internally I don't use that	10:00
14	version of the product. I use an Enterprise	10:00
15	personal product	10:00
16	Q. Okay.	10:00
17	A which is called Workset.	10:00
18	Q. And what's the difference functionally	10:00
19	between those two?	10:00
20	MS. STEIN: Objection. This is like way	10:00
21	beyond the scope about what employees at Facebook	10:00
22	use.	10:01
23	MS. WEAVER: Okay. Fine. It's fine. I	10:01
24	was trying to establish a foundation, but I guess we	10:01
25	can come back to that in another deposition.	10:01
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1		
4	Q. Okay. And just again by way of	10:02
5	understanding how Facebook functions, you see	10:02
6	there's a Dropbox hyperlink here in the email?	10:02
7	A. Yes.	10:02
8	Q. Does Facebook also use Dropbox?	10:02
9	MS. STEIN: Objection to form. This	10:02
10	isn't not an ESI depo and he is not testifying	10:02
11	about what Facebook uses internally. Let's focus on	10:02
12	the subjects that he's here for.	10:02
13	MS. WEAVER: I'm trying to understand if	10:02
14	this document is complete, and that's a little bit	10:02
15	difficult to do. So are you going to instruct him	10:03
16	not to answer?	10:03
17	MS. STEIN: Is there a reason why you	10:03
18	think the document is not complete?	10:03
19	MS. WEAVER: Okay. Let me question.	10:03
20	Q. So is it true that Facebook people use	10:03
21	Dropbox at Facebook to share document files?	10:03
22	A. Can I answer?	10:03
23	Q. Yes.	10:03
24	A. Sorry, I was looking at the document.	10:03
25	Q. No problem.	10:03
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# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 56 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	A. It's it's true that for files that are	10:03
2	concise that are too big to send by email we would	10:03
3	use Dropbox.	10:03
4	Q. Okay. Is there any way to know whether or	10:03
5	not a hard copy version of a document like this was	10:03
6	everything that was contained in the hyperlink or	10:03
7	would you have to see it in native form?	10:03
8	MS. STEIN: Objection to form.	10:03
9	Lesley, next.	10:03
10	BY MS. WEAVER:	10:03
11	Q. Please answer the question.	10:03
12	A. I'm not sure I understand exactly what you	10:03
13	saying. I don't even know what you have printed	10:03
14	out, so I cannot really establish whether it's a	10:03
15	complete document or not.	10:03
16	Q. Okay. Is there normally let me ask	10:03
17	this. Does Facebook maintain document like	10:04
18	documents like this in PDF form or are they native?	10:04
19	MS. STEIN: Objection to form.	10:04
20	Lesley, move on.	10:04
21	BY MS. WEAVER:	10:04
22	Q. Please answer the question.	10:04
23	MS. STEIN: It's not an ESI deposition.	10:04
24	Move on.	10:04
25	MS. WEAVER: I'm trying to understand this	10:04
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1	document, which we gave to you ahead of time, and	10:04
2	whether or not it's complete. So please allow him	10:04
3	to answer.	10:04
4	MS. STEIN: Ask him if he knows whether	10:04
5	it's complete. Don't ask him about things that have	10:04
6	nothing to do with what he's here to testify about	10:04
7	here today. He's not authorized on behalf of	10:04
8	Facebook to talk about Dropbox, email, messaging	10:04
9	that gets used internally.	10:04
10	BY MS. WEAVER:	10:04
11	Q. So, K.P., can I ask you, is there any kind	10:04
12	of for Dropbox is there any well, just I'll	10:04
13	move on. I'll come back to it.	10:04
14		
		Page 56
		1

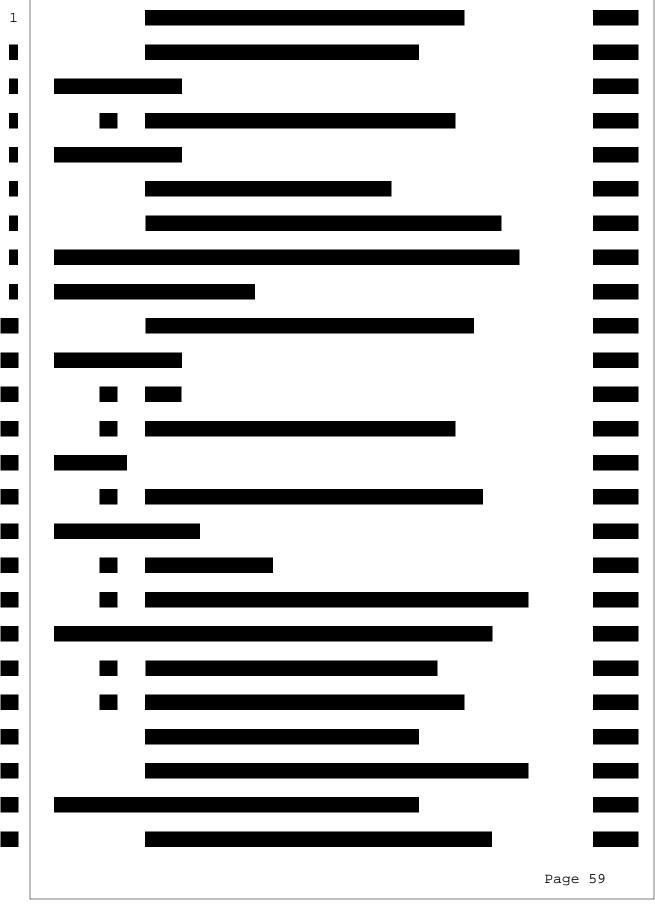
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 58 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1		
13	A. No, I haven't spoken to him.	10:05
14	Q. Did you speak to anybody other than your	10:06
15	counsel to prepare for your deposition today?	10:06
16	A. No, I haven't.	10:06
17	Q. And how long did you take to prepare for	10:06
18	your deposition?	10:06
19	A. I think I already answered that question.	10:06
20	I been preparing for this deposition for as long as	10:06
21	I have been at Facebook.	10:06
22	Q. Fair enough.	10:06
23	A. It's a collective collective knowledge	10:06
24	of my last 8 and a half years of being employed at	10:06
25	this company.	10:06
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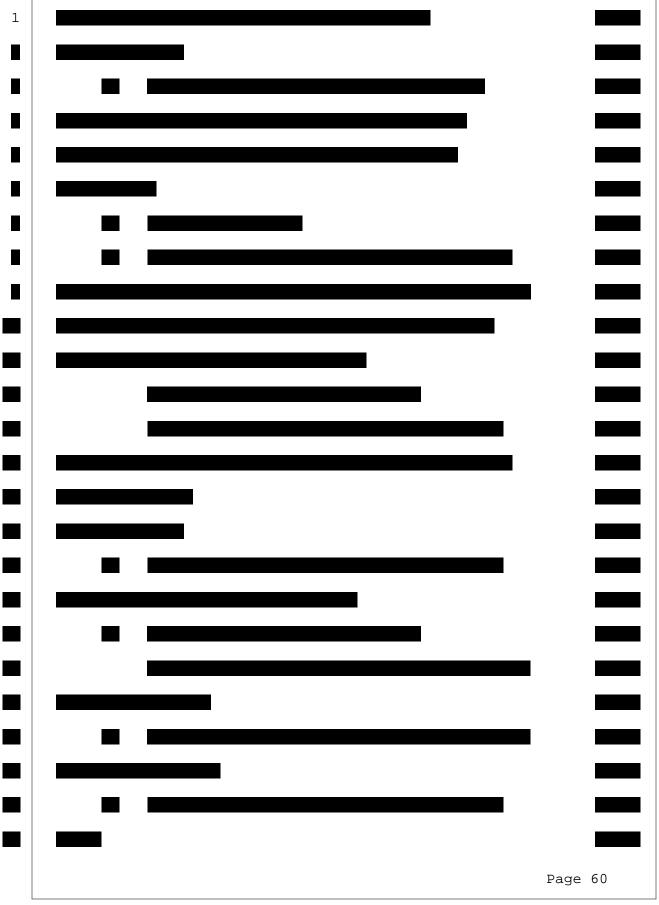
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 59 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Q. Okay. And specifically to prepare for	10:06
2	this deposition in response to this notice, how much	10:06
3	time did you spend preparing?	10:06
4	A. I don't know. Between, you know, calls	10:06
5	with my counsels and homework that I have done for	10:06
6	myself, I would say 15-20 hours.	10:06
7	Q. Okay. Thank you.	10:06
8		
	Pag	e 58

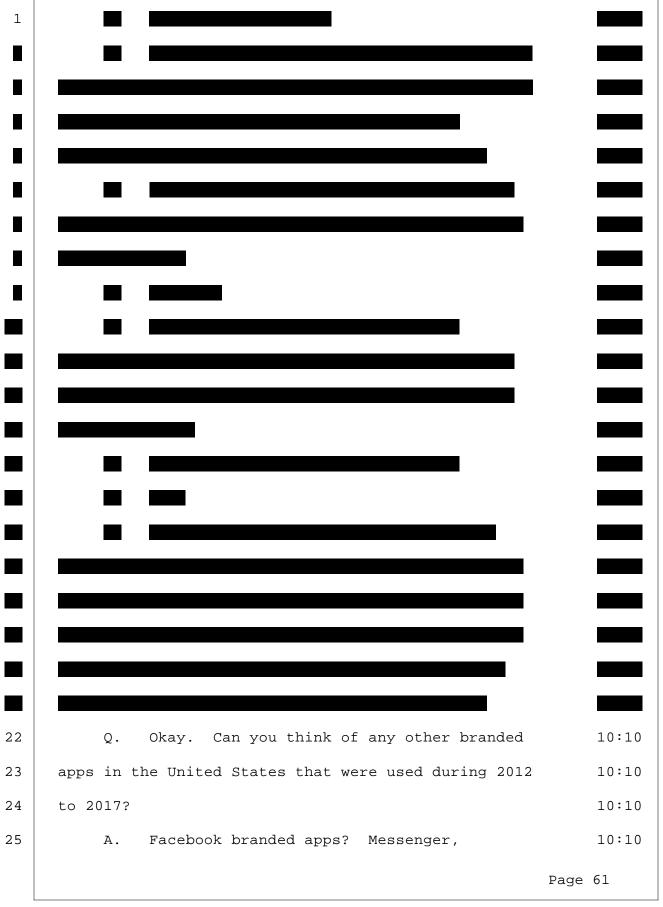
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 60 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



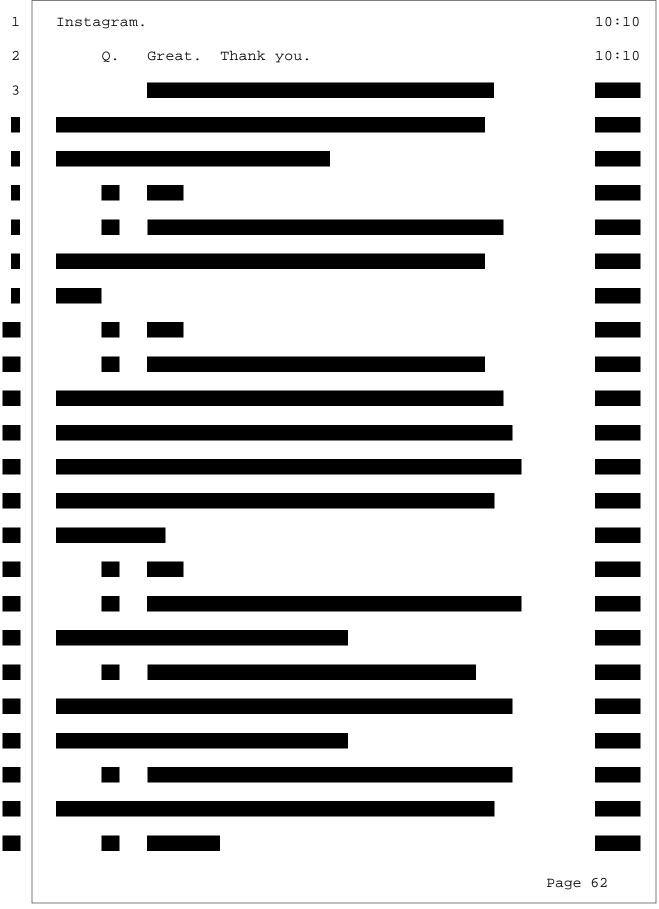
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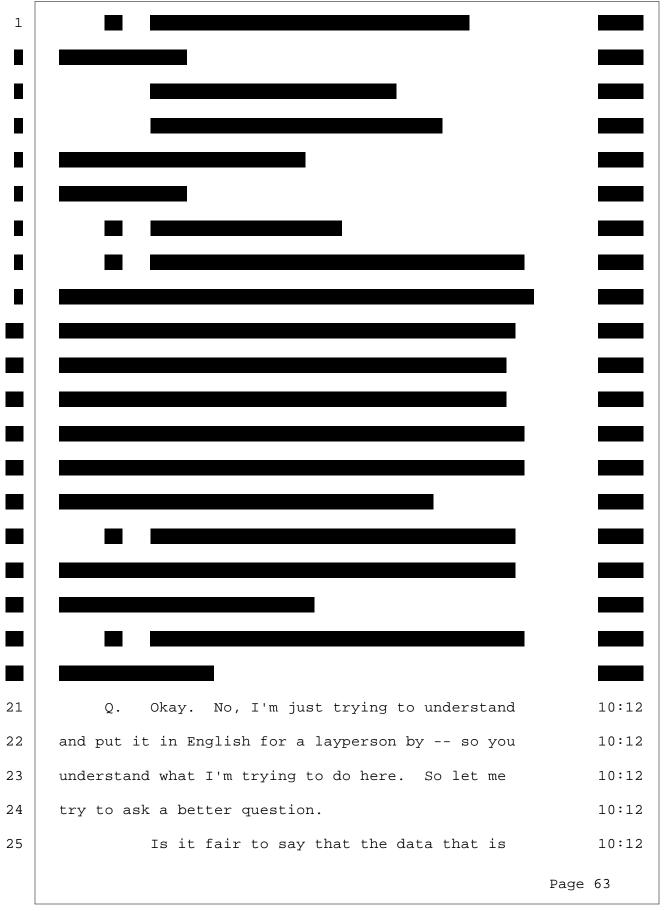
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 62 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 63 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



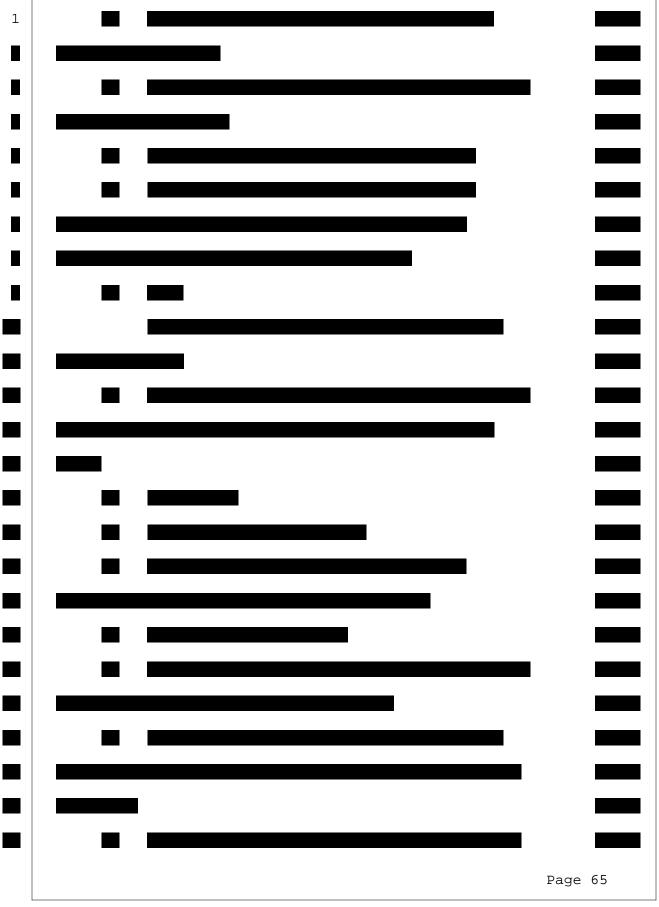
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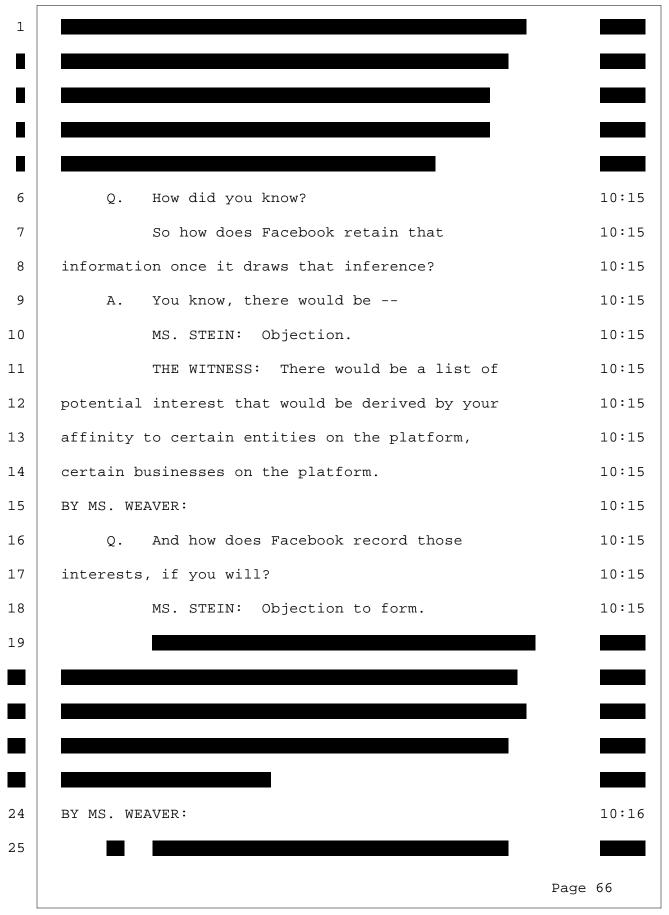
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 65 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	implicitly collected by Facebook is not expressly	10:12
2	shared by users?	10:12
3	MS. STEIN: Objection to form.	10:12
4	THE WITNESS: So they may not be explicit	10:13
5	shared because they submit the data to us, but they	10:13
6	have agreed to share that data because they have	10:13
7	agreed to the privacy policies	10:13
8	BY MS. WEAVER:	10:13
9	Q. Okay.	10:13
10	A that make it clear that we will have	10:13
11	access to this kind of data.	10:13
12		
	Pag	e 64

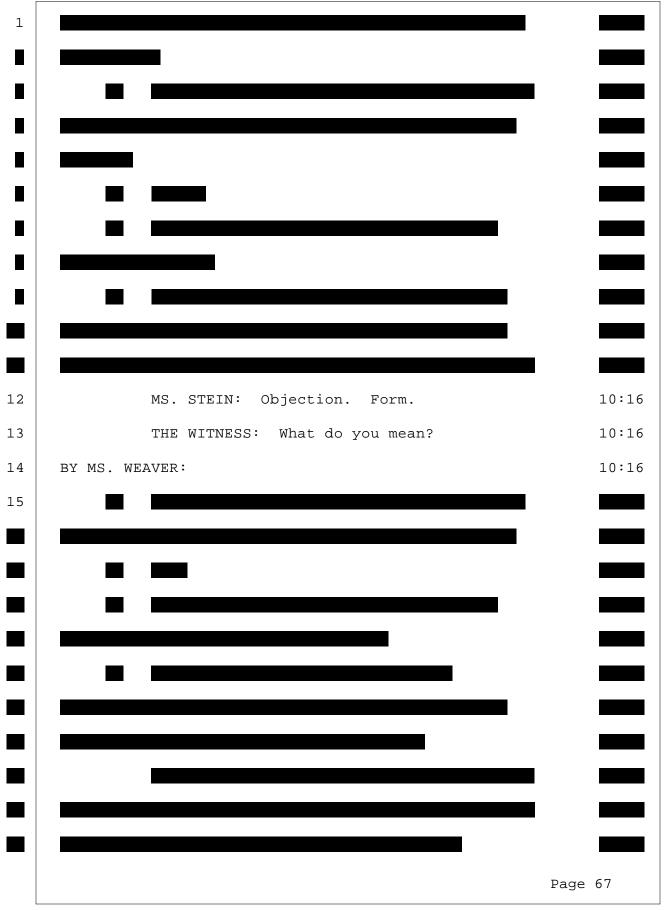
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 66 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



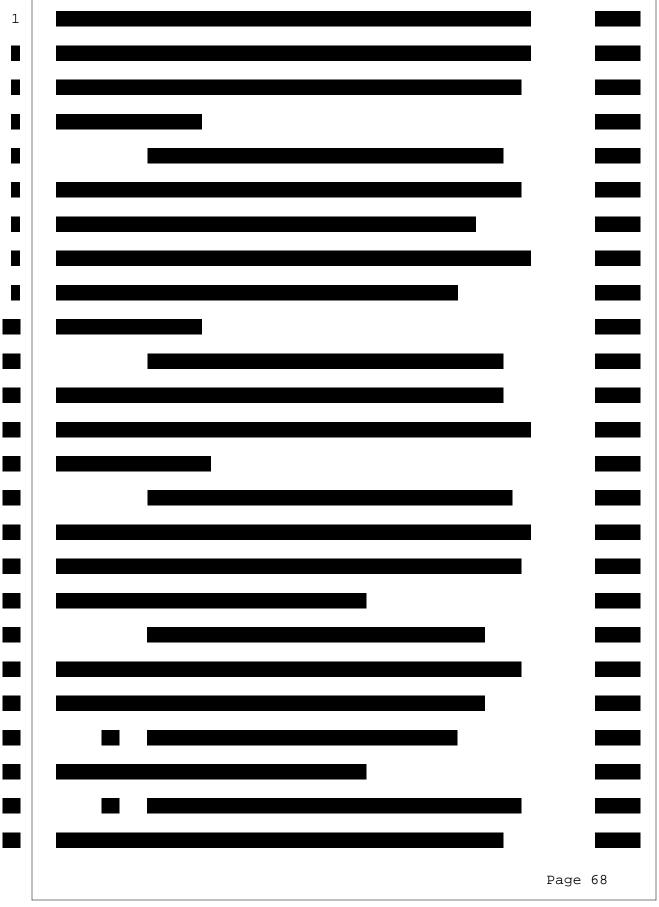
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 67 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 68 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



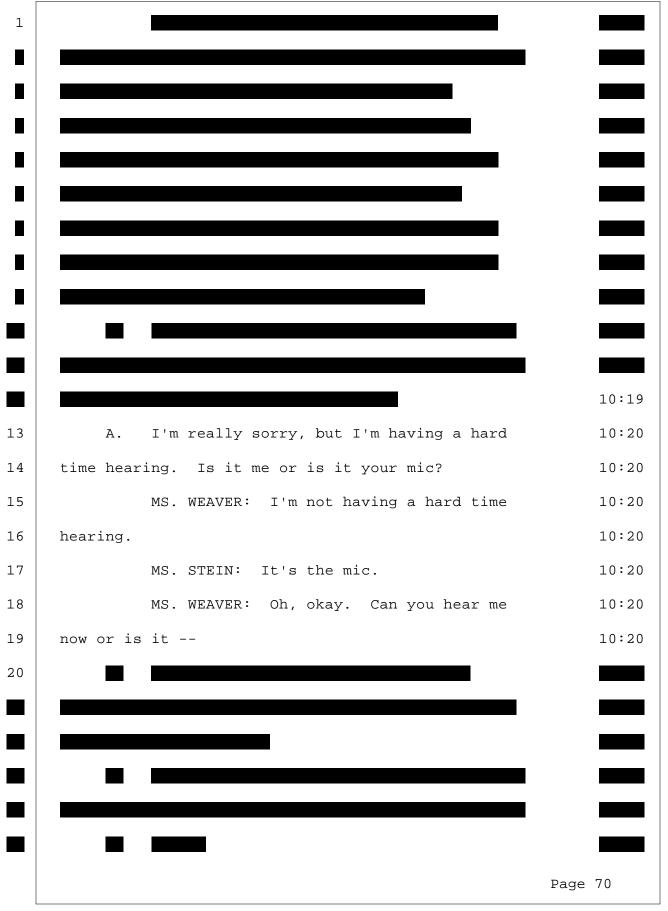
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 69 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



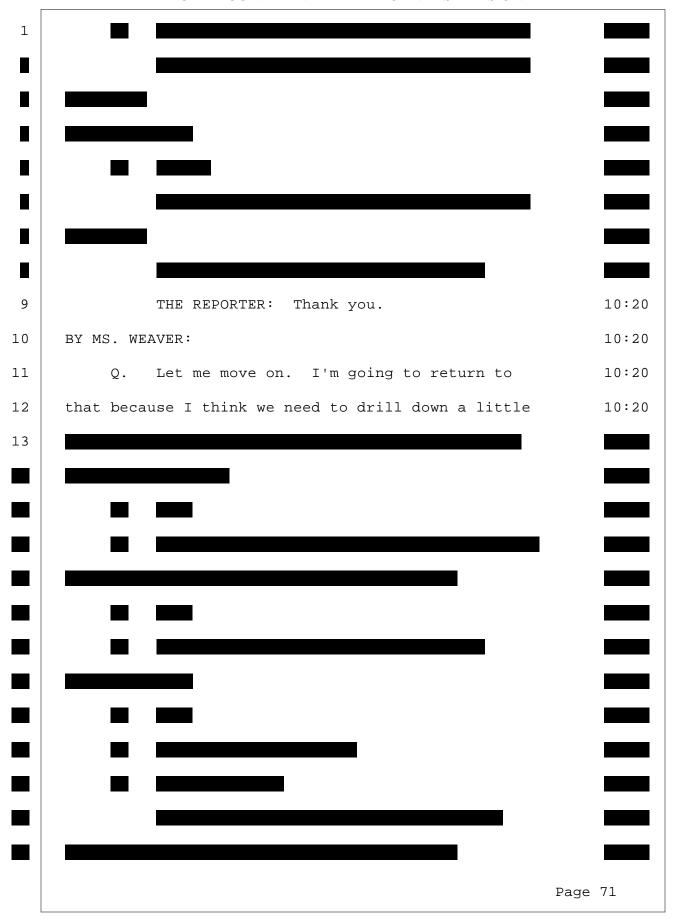
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 70 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



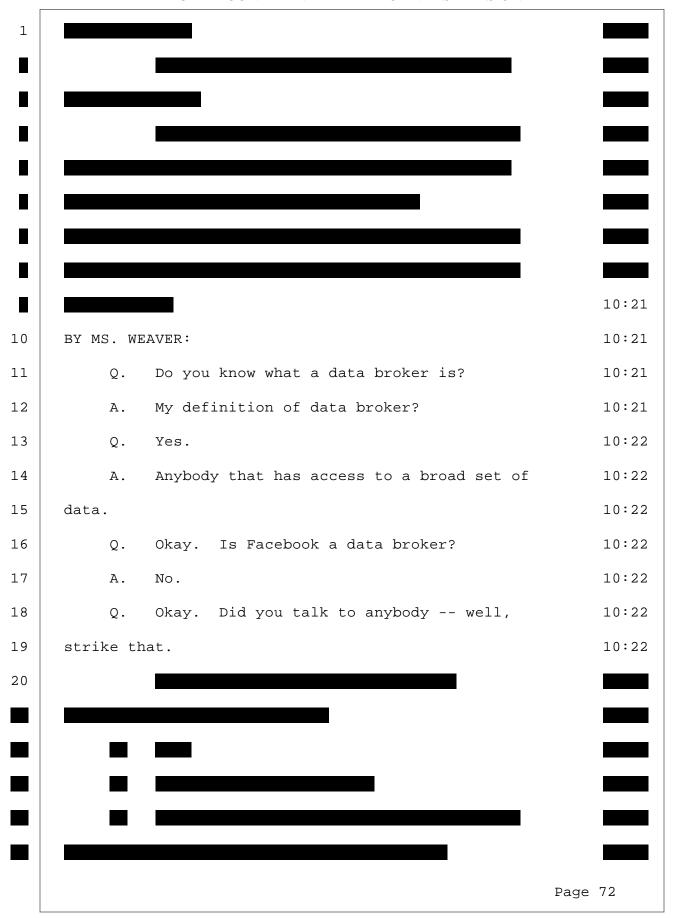
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 71 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 72 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 73 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



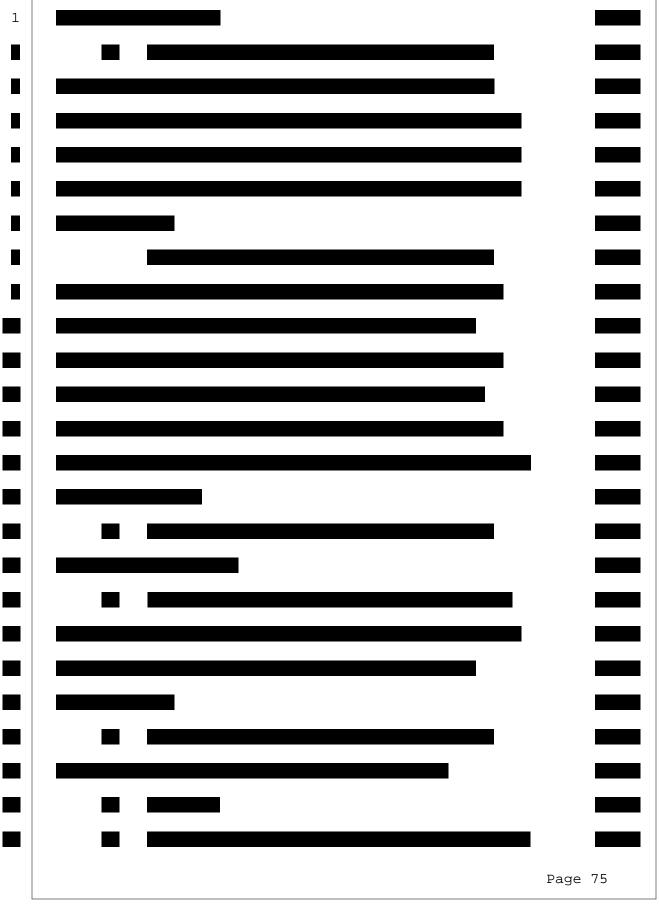
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 74 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

	10:
Q. What is an advertiser?	10:
A. Someone that is running marketing	10:
companies on Facebook.	10:
	10:
Q. What is custom audiences?	10:
A. A custom audience is a reference to a	10:
products whereby a business can upload and encrypt	10:
its a version of their database of customers for	10:
the purpose of running a campaign that targets those	10:
P	age 73

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 75 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	customers.	10:23
2	Q. Okay. I want to break that down a little	10:23
3	bit.	10:23
4	MS. WEAVER: I'm not seeing that on my	10:23
5	live feed.	10:23
6	Could you read his response back, please.	10:24
7	(The record was read by the	10:24
8	court reporter, as requested)	10:24
9	BY MS. WEAVER:	10:24
10	Q. Okay. And when you say "encrypt," what do	10:24
11	you mean?	10:24
12	A. They wouldn't upload the raw data. They	10:24
13	would upload a version of that data.	10:24
14	THE REPORTER: I'm sorry, could you repeat	10:24
15	that last part, please?	10:24
16	THE WITNESS: They wouldn't upload raw	10:24
17	customer data. They would upload encrypted personal	10:24
18	or hashed personal data.	10:24
19	BY MS. WEAVER:	10:24
20	Q. Thank you. And when you say "raw customer	10:24
21	data," what do you mean?	10:24
22	A. Email addresses.	10:24
23	Q. Anything else?	10:24
24	A. No.	10:24
25	Q.	
		Page 74

### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 76 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



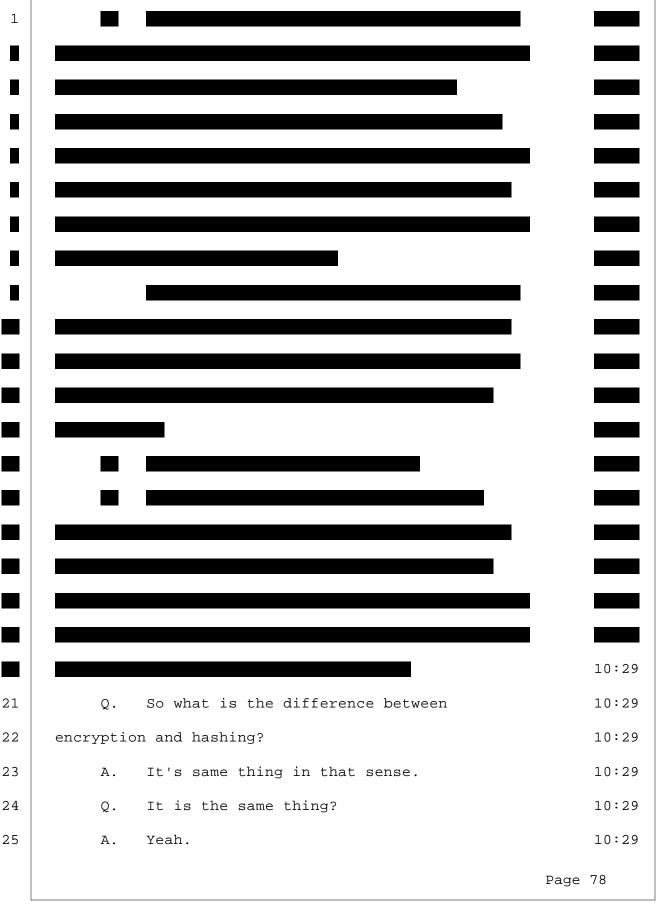
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 77 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1		
		10:26
11	Q. Do political campaigns advertise?	10:26
12	A. Yes, they do.	10:26
13	Q. Okay. And when they are seeking	10:26
14	conversion, are they seeking to encourage certain	10:26
15	actions by Facebook users?	10:26
16	MS. STEIN: Objection to form.	10:27
17	THE WITNESS: Yeah, but that wouldn't	10:27
18	include, you know, like what people voted. It would	10:27
19	probably include if they read, or if they donated,	10:27
20	or if they took an action on their website,	10:27
21	depending on what the campaign is actually optimized	10:27
22	for.	10:27
23	BY MS. WEAVER:	10:27
24	Q. Got it.	10:27
25	A. But, no, the conversion wouldn't be that I	10:27
		Page 76

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 78 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	voted for Biden or I voted for Trump. That's not	10:27
2	THE REPORTER: I'm sorry, could you please	10:27
3	slow down. The last part?	10:27
4	THE WITNESS: Oh, sorry.	10:27
5	THE REPORTER: "The conversion"	10:27
6	THE WITNESS: The conversion that	10:27
7	political campaigns are tracking have to do with	10:27
8	fundraising, donations, registration, this kind of	10:27
9	things.	10:27
10	BY MS. WEAVER:	10:27
11	Q. Okay. And so Facebook provides conversion	10:27
12	measurement information back to the advertisers	10:27
13	which could include political campaigns; is that	10:27
14	right?	10:27
15	MS. STEIN: Objection to form.	10:27
16	THE WITNESS: Yes.	10:27
17	BY MS. WEAVER:	10:27
18		
	Pa	ge 77

#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 79 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



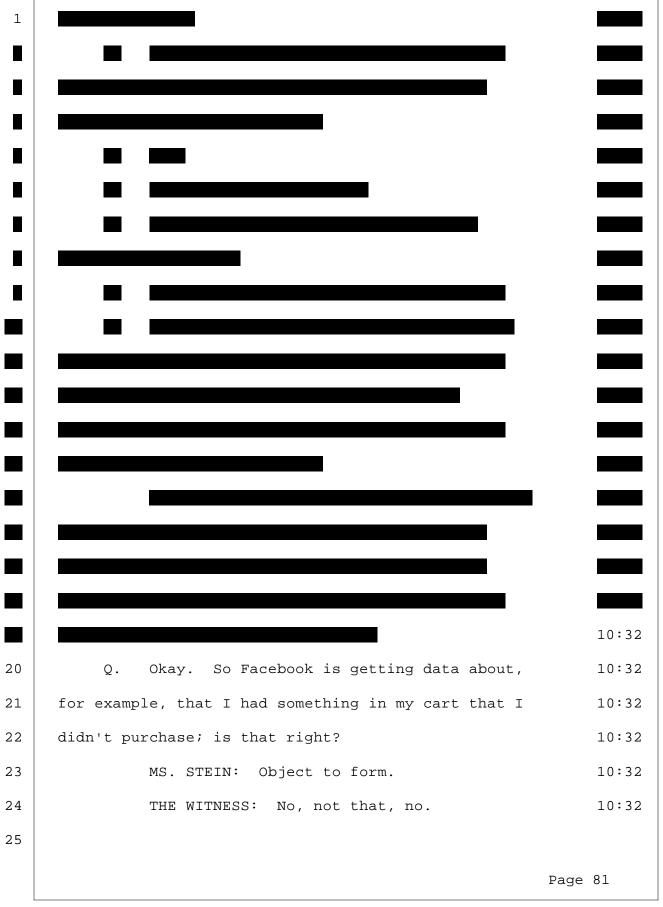
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 80 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Q. Is it true that hashing has two inputs	10:29
2	well, let me go back. Is it fair to say that	10:29
3	encryption has two inputs so that if you have a key,	10:29
4	you can associate data point together; is that fair?	10:29
5	MS. STEIN: Object to form. He's not here	10:29
6	as a technical expert, so	10:29
7	You can give your high-level	10:29
8	understanding, if you have one.	10:29
9	THE WITNESS: Yes, I don't I don't	10:29
10	want I don't want to talk about, you know, like	10:29
11	encryption. But it's important here, I think, to	10:29
12	take away is that we don't have access to those	10:29
13	email addresses and they don't have access to the	10:30
14	people who we ended up identifying as users who have	10:30
15	both a Facebook account and a Walmart account.	10:30
16	BY MS. WEAVER:	10:30
17		
	P	age 79

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 81 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1		
		10:30
3	Q. So could you, please, explain what hashed	10:30
4	data matching is?	10:30
5	A. If an advertiser has information about a	10:30
6	user, a customer of theirs, like their email	10:30
7	address I didn't realize that we can actually be	10:30
8	based on phone number or home address, but if it	10:30
9	seems to be the case, then that's basic data that we	10:30
10	can use to match those users on the Facebook site.	10:30
11		
		10:31
	Pa	age 80

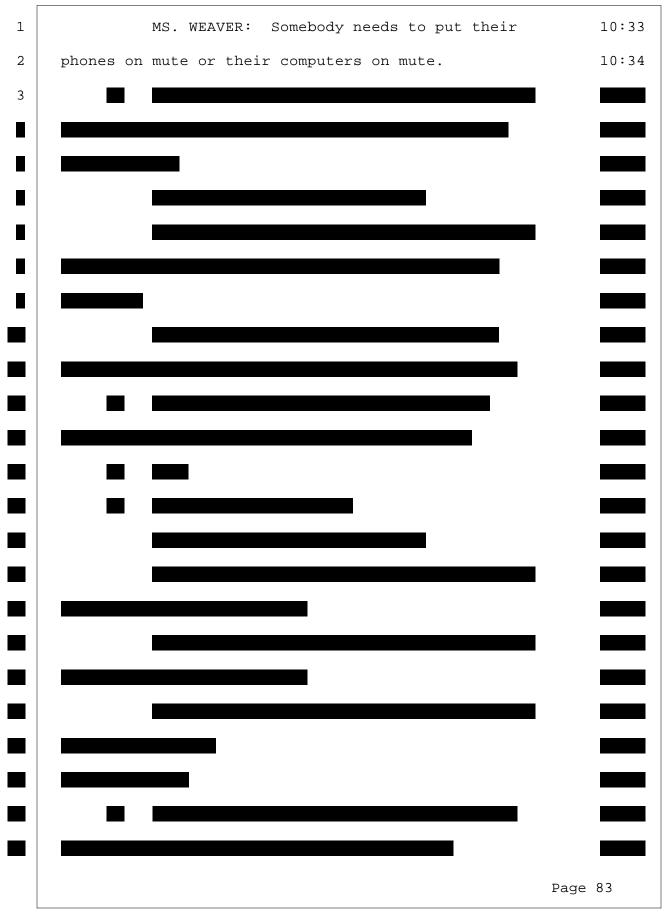
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 82 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



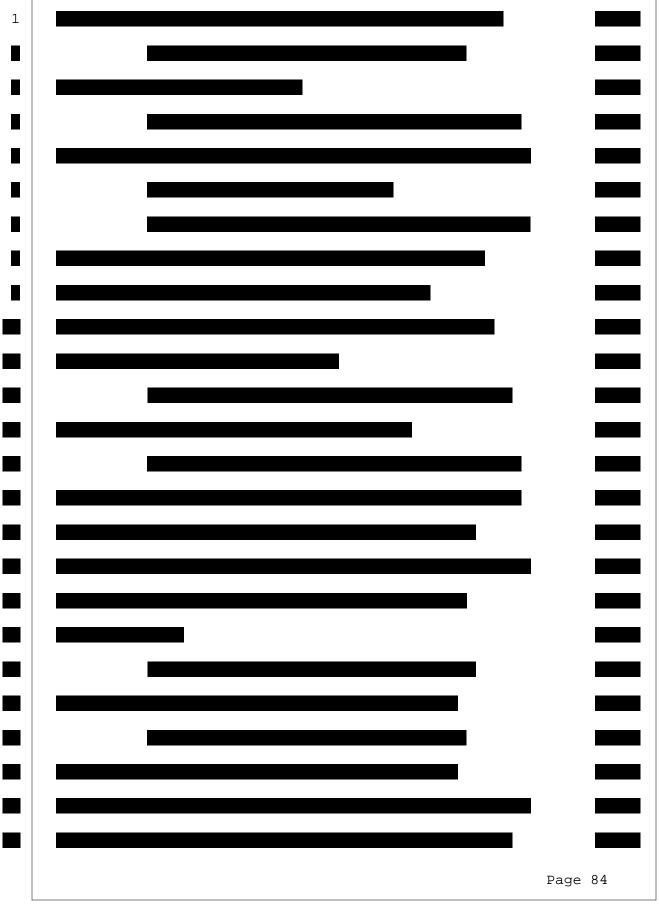
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 83 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	BY MS. WEAVER:	10:32
2	Q. Okay. Who has it? You just gave that as	10:32
3	an example.	10:32
4	A. Yeah, but that is a logic that takes place	10:32
5	on the advertiser's side.	10:32
6	Q. Okay.	10:32
7	A. The advertiser selects the marketing team	10:32
8	on the advertiser side to decide what kind of	10:32
9	campaign they want to run. And they create a	10:33
10	segment of their customers that they want to target	10:33
11	with their ad campaign, and then they will decide	10:33
12	what creative they want to use, like how the ad is	10:33
13	going to look like.	10:33
14		
25	(Background audio interference.)	10:33
	Pa	ge 82

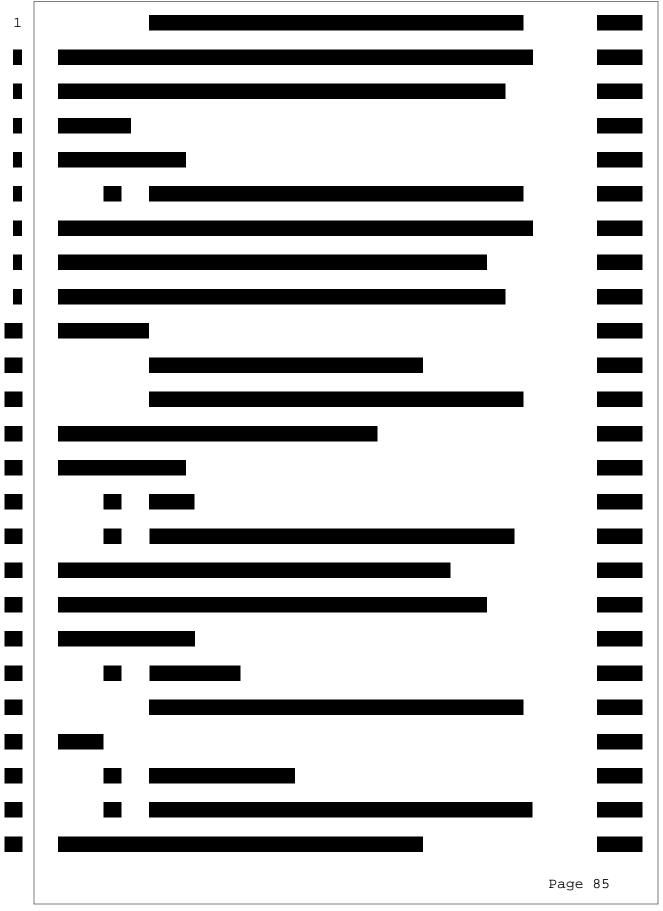
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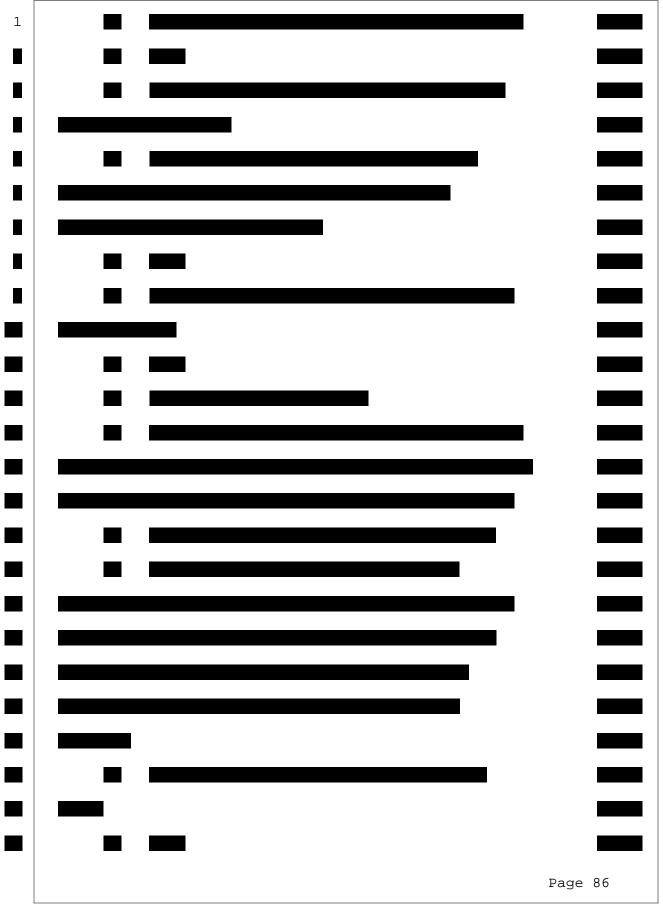
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 85 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



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### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 87 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



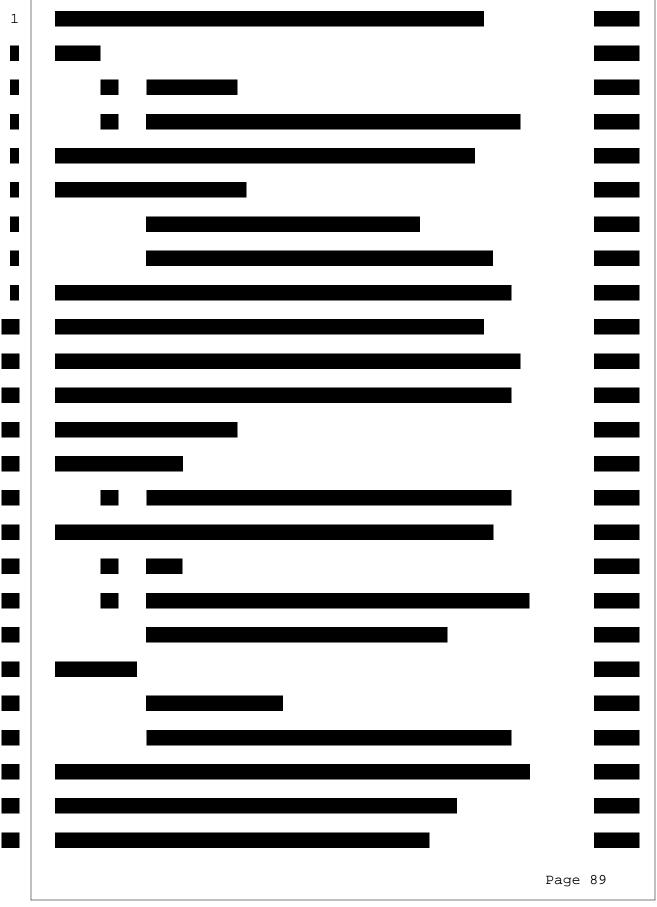
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 88 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1		
		10:38
17	Q. Okay. I see that I guess the videographer	10:38
18	would like to take a quick break. So do you want to	10:38
19	just is that comfortable for you, K.P., to take a	10:38
20	break for a little bit here?	10:38
21	A. Yes, I need a coffee.	10:38
22	MS. WEAVER: Okay. So why don't we come	10:38
23	back at, do you want to say, 10:50?	10:38
24	THE WITNESS: 10 minutes from now?	10:38
25	MS. WEAVER: Yeah, does that work? Well,	10:39
		Page 87

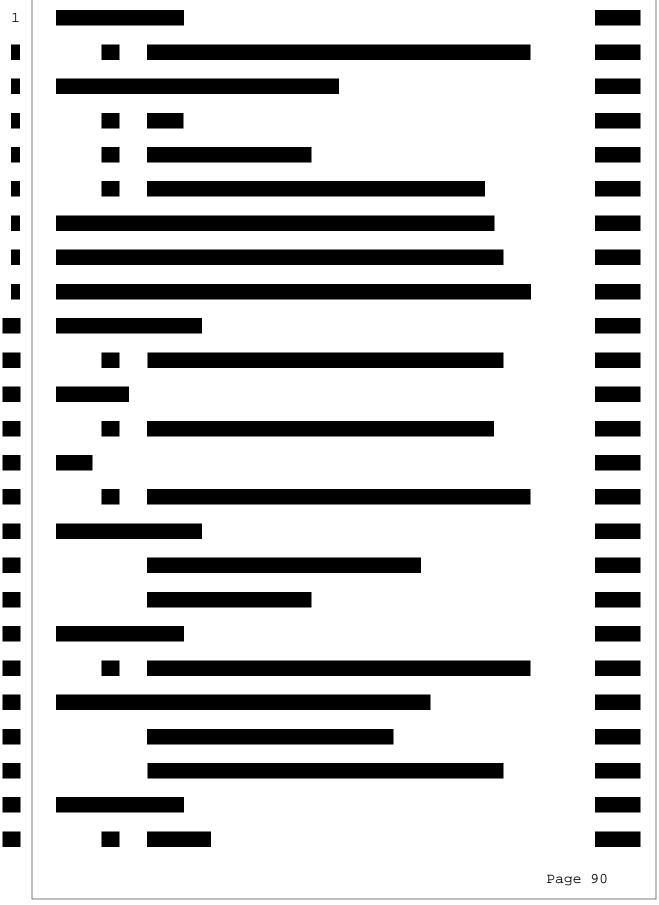
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 89 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	1 11 minutes? Okay. Gre	eat.	10:39
	2 THE VIDEOGRAP	PHER: We are off the record	10:39
2	10:39	3 at a.m.	
	10:39		
3	4 (Recess.)		10:39
	10:39	5 (Off record:	a.m.)
4	10:39		
5	6 (On record:	10:53 a.m.)	10:39
6	7 THE VIDEOGRAP	PHER: We are on the record at	10:53
7	10:53	8 a.m.	
8	10:53		
9	9 BY MS. WEAVER:		10:53
0	10 Q. Hello, K.P.	You understand you are still	10:53
1	11 under oath, correct?		10:53
2	12 A. Yes, I do.		10:53
3			
			10:53
2		Object to form.	10:53
3	23 BY MS. WEAVER:		10:53
4	24 		
		;	Page 88

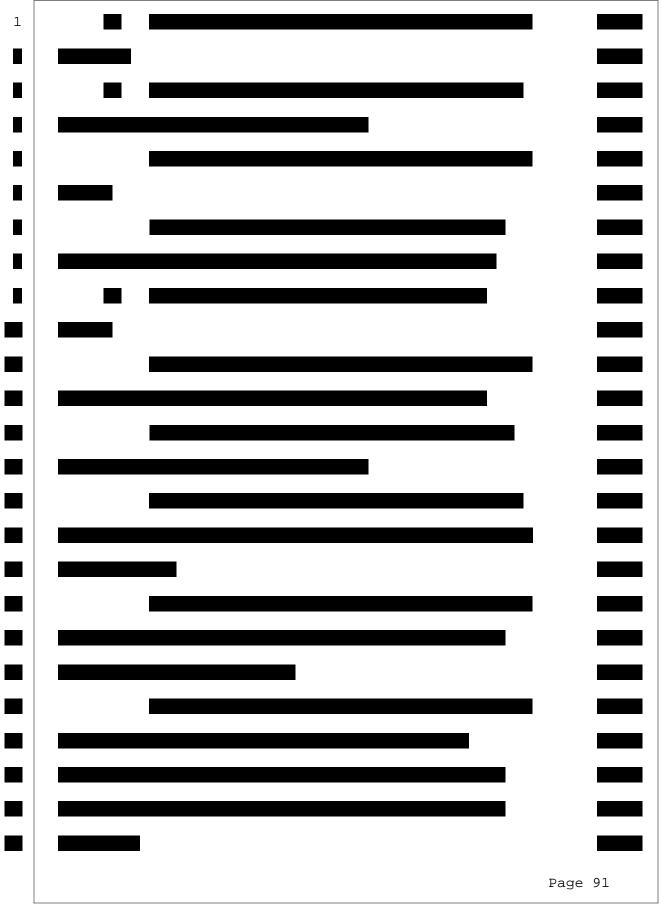
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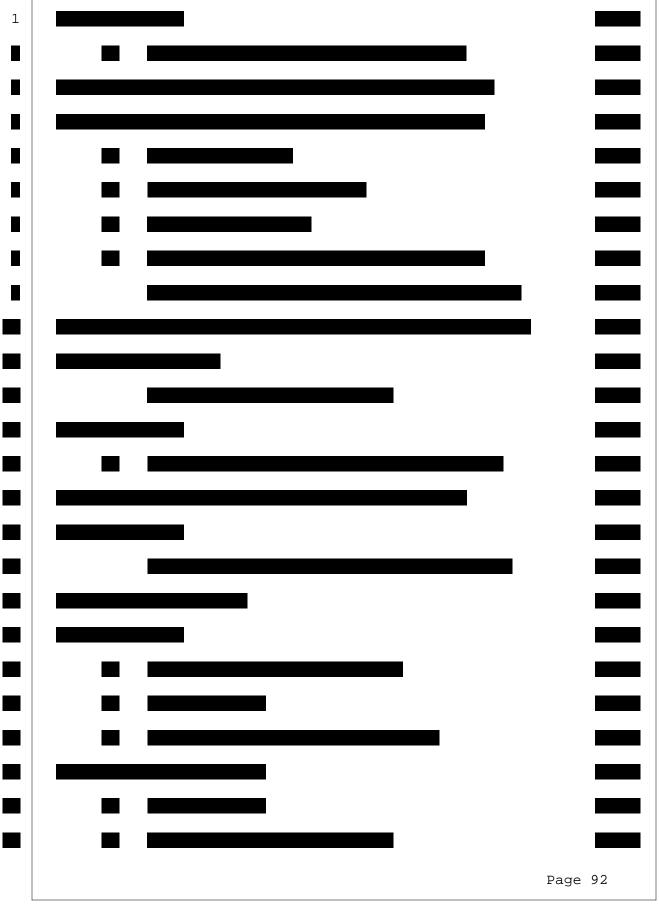
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 91 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 92 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



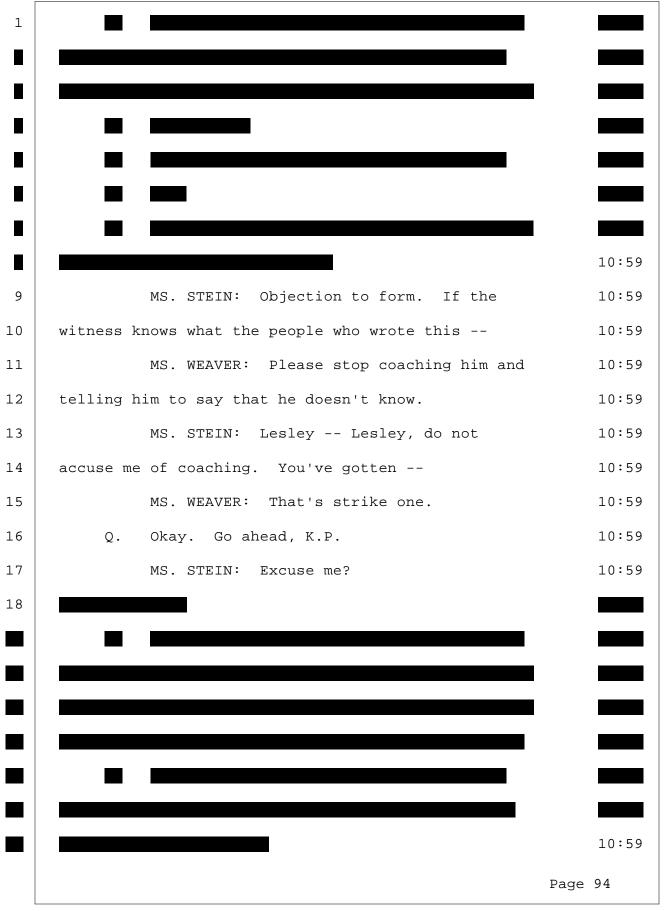
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 93 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



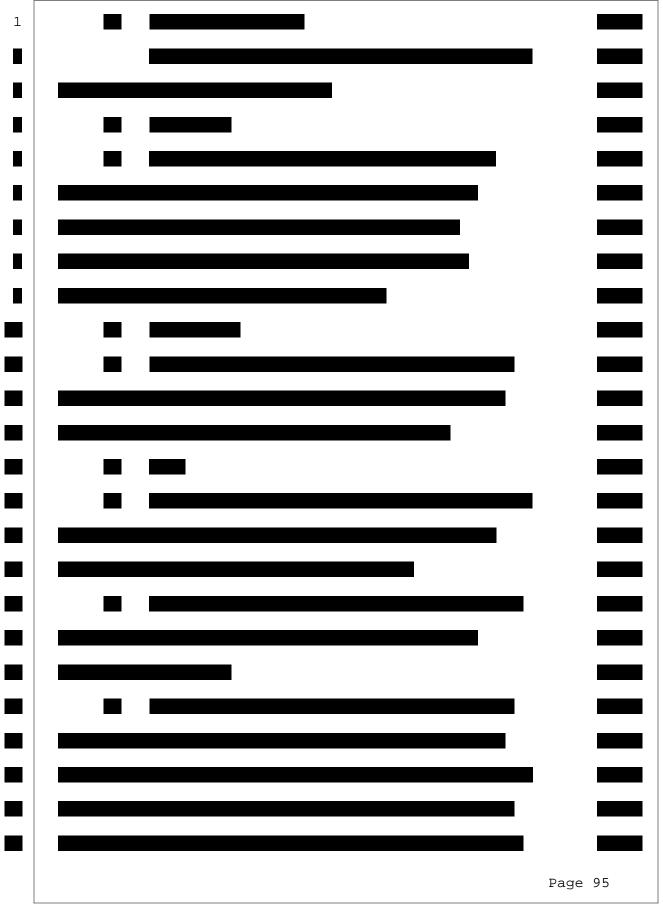
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 94 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Α.	It's a very broad question. So in what		10:57
2	capacity?			10:57
3	Q.	Who oversaw the Onavo project from within		10:57
4	Facebook?	It was a partnership, correct?		10:57
5	Α.	No, it's not a partnership. It's an		10:57
6	acquisitio	on.		10:57
7	Q.	Okay. So who oversaw that acquisition?		10:57
8	Α.	On the Facebook side or		10:57
9	Q.	Yes.		10:58
10	A.	after the acquisition?		10:58
11	Q.	On the Facebook side.		10:58
12	A.	I don't know.		10:58
13	Q.	Okay. What about after the acquisition?	:	10:58
14	A.	The I guess the CEO of Onavo.		10:58
15			I	
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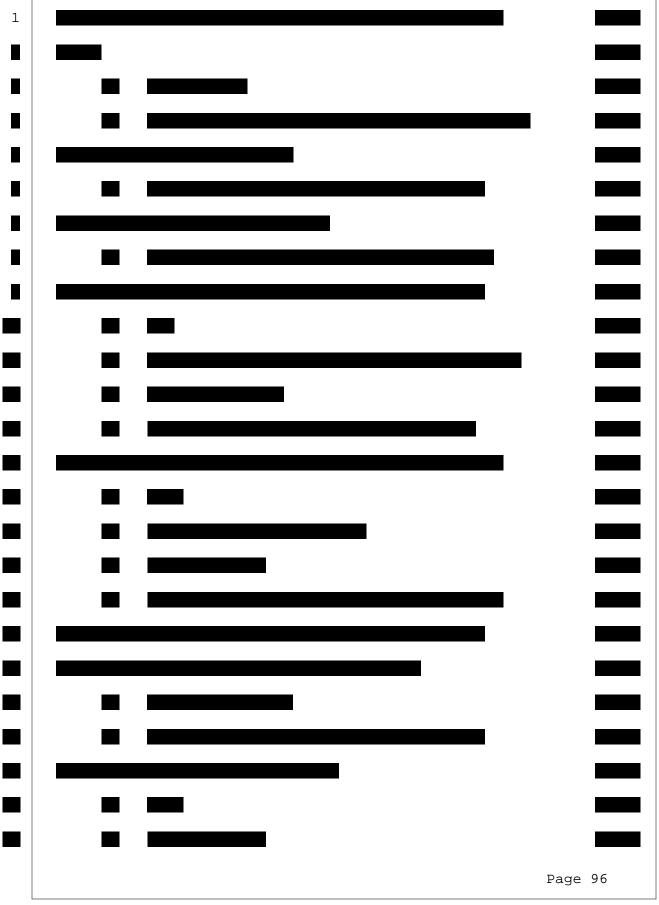
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 95 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



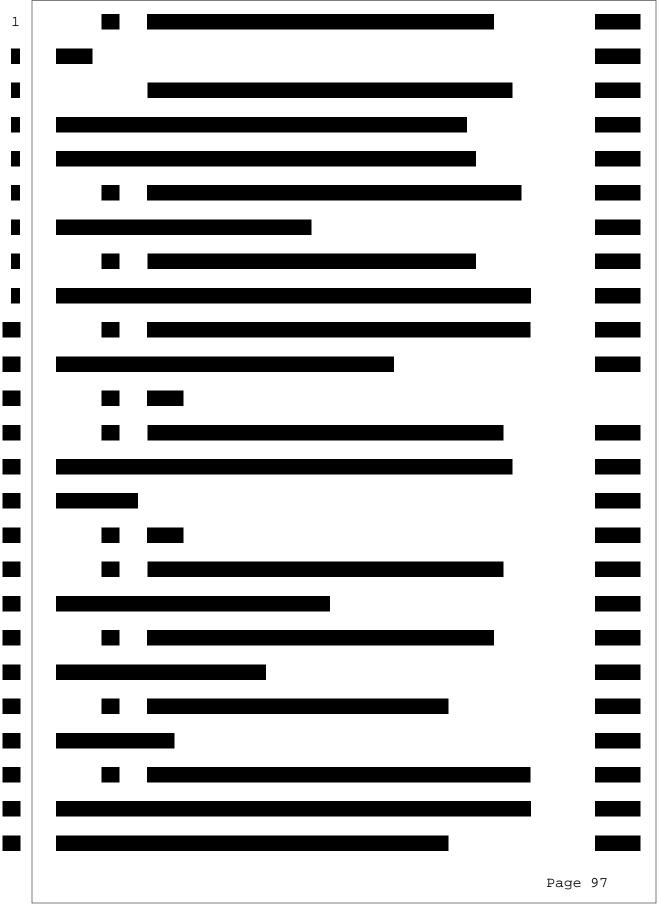
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 96 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 97 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



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## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 99 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1		
		11:04
9	Q. Okay. And back to the DYI. You say it's	11:04
10	all the information that Facebook has for you; is	11:04
11	that correct?	11:04
12	A. Yes.	11:04
13	Q. What do you mean by that?	11:04
14	A. It includes from things from like the	11:04
15	information you submitted when you created your	11:04
16	account, to the photos that you may have uploaded,	11:04
17	to the pixels of your friends you may have liked, to	11:04
18	the ads you may have seen, the videos you may have	11:04
19	watched. It's a it's a very lengthy, you know,	11:04
20	like document with different things.	11:04
21		
23	DIY tool include appended data?	11:04
24	A. No.	11:04
25	Q. Okay. Does it include behavioral data?	11:04
		Page 98

# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 100 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	MS. STEIN: Objection to form.	11:04
2	THE WITNESS: Yes, it does.	11:05
3	BY MS. WEAVER:	11:05
4	Q. Okay. So it includes the conversions and	11:05
5	purchases off Facebook?	11:05
6	A. I don't know about that, but it includes	11:05
7	the apps that you have logged in. It includes, I	11:05
8	think, the websites that you may have liked, and so	11:05
9	on.	11:05
10	Q. Okay. Does the Do It Yourself network	11:05
11	include the native data that was inferred from	11:05
12	engagement on the site?	11:05
13	MS. STEIN: Objection to form.	11:05
14	THE WITNESS: I think you're referring to	11:05
15	the DYI file?	11:05
16	BY MS. WEAVER:	11:05
17	Q. Yes. I'll ask the question again. Sorry.	11:05
18	Does the DIY file include native data that	11:05
19	is inferred from engagement on the site?	11:05
20	MS. STEIN: Objection to form.	11:05
21	THE WITNESS: It should include interests,	11:05
22	which are inferred data, so yes.	11:05
23	BY MS. WEAVER:	11:05
24	Q. Does it also include behaviors?	11:05
25	MS. STEIN: Objection to form.	11:05
		Page 99

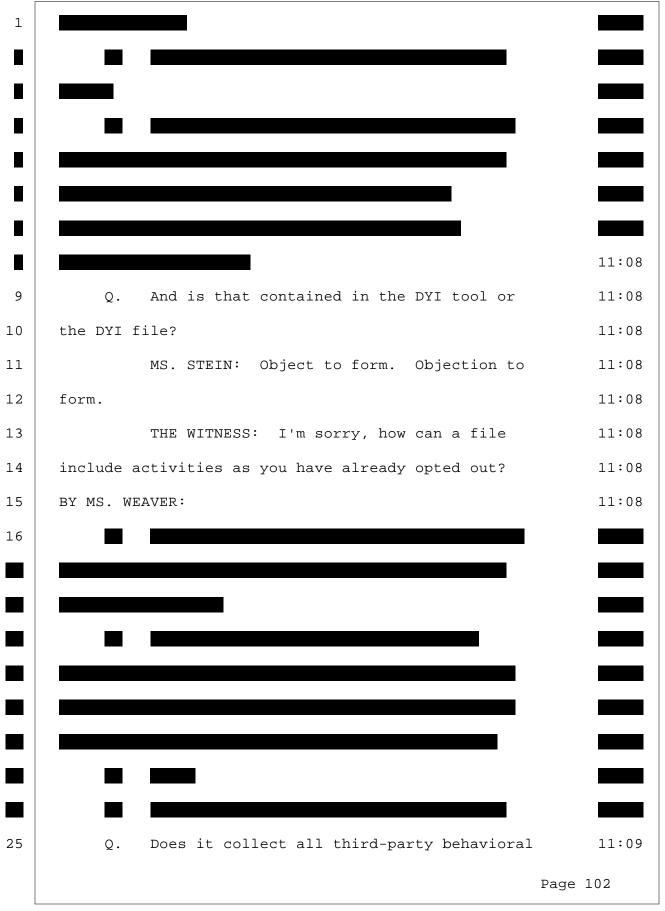
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 101 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1		
1	MS. WEAVER: What's the objection?	11:06
2	MS. STEIN: "Behaviors" is a very vague	11:06
3	term, Lesley.	11:06
4		
		11:06
22	MS. STEIN: Objection to form.	11:06
23	THE WITNESS: DYI file includes activities	11:06
24	such as you liking a page that may suggest an	11:07
25	interest and, by default, explain a behavior or	11:07
		Page 100

# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 102 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	describe a behavior.	11:07
2	BY MS. WEAVER:	11:07
3	Q. Okay. But is that to be inferred from the	11:07
4	engagement on the site?	11:07
5	A. It's driven by your activities happening	11:07
6	on the Facebook website or the Facebook apps.	11:07
7		
2.5		
25		
	Pa	age 101

#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 103 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



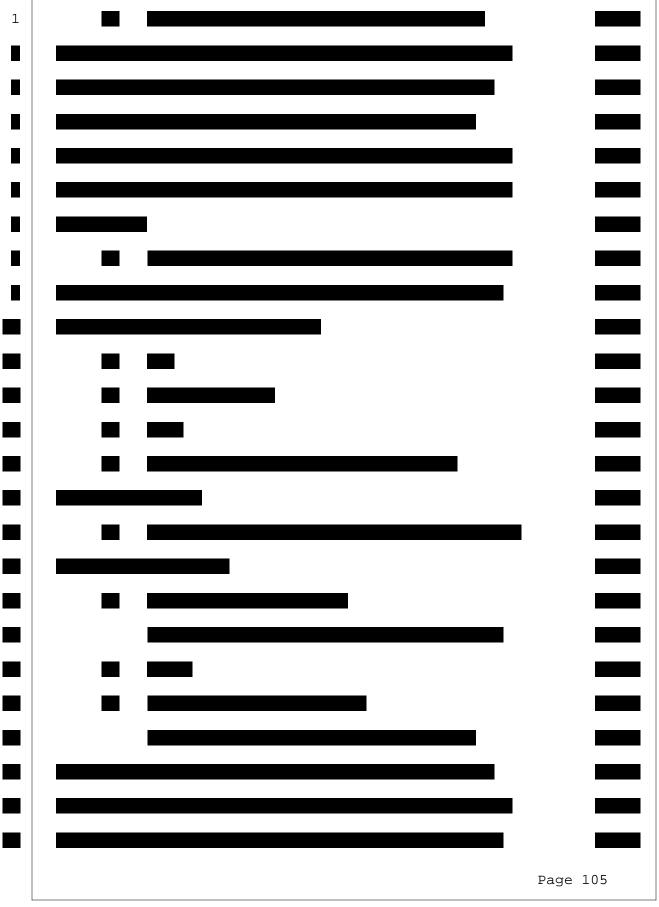
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 104 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	data?		11:09
2		MS. STEIN: Objection to form.	11:09
3		THE WITNESS: All? I don't know.	11:09
4	BY MS. WE	AVER:	11:09
5	Q.	Yeah. Okay.	11:09
6		How would you find out?	11:09
7	Α.	I would have to look at the DYI file.	11:09
8	Q.	Okay. And have you looked at any DYI	11:09
9	files to	prepare for your deposition today?	11:09
10	Α.	No, I have not, because that would be a	11:09
11	violation	of my commitment to users' privacy.	11:09
12	Q.	Did you look at DYI files for any of the	11:09
13	named pla	intiffs in this action to prepare for the	11:09
14	depositio	n?	11:09
15	Α.	No, because that would be in violation of	11:09
16	my commitment to users' privacy. 11:09		
17	Q.	To prepare	11:10
18	Α.	I would be fired	11:10
19	Q.	If your	11:10
20	Α.	if I look	11:10
21	Q.	If your lawyers had you look at the	11:10
22	plaintiff	s' DYI files to prepare for deposition in	11:10
23	this action?		11:10
24	Α.	I would be fired.	11:10
25	Q.	Okay. Well, we'll table that.	11:10
			Page 103

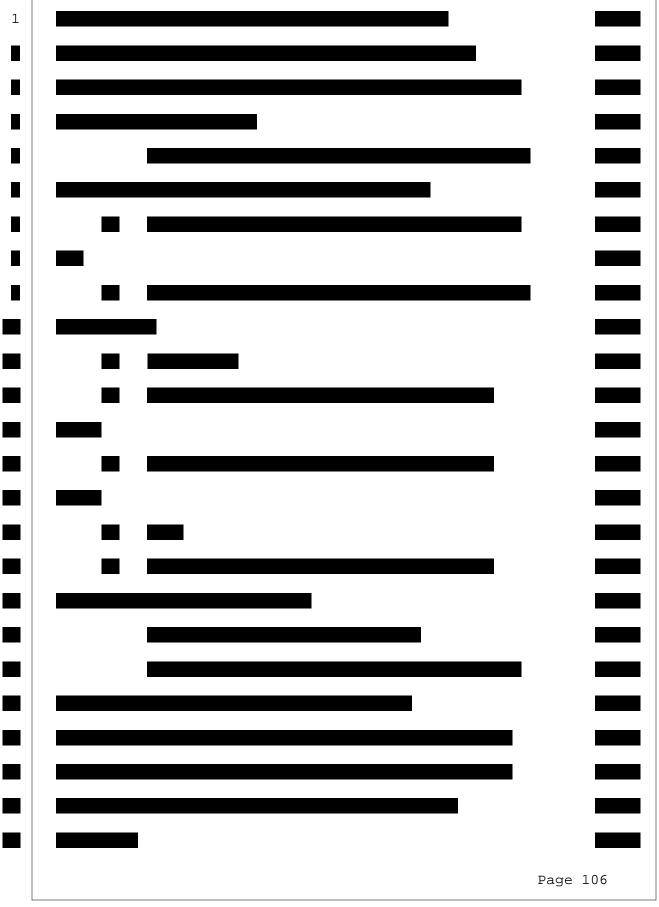
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 105 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1		Can you look at your	11:10
2	Α.	No one here	11:10
3	Q.	Can you look at your own	11:10
4	Α.	I can only look at mine.	11:10
5	Q.	DYI oh, okay. So can you look at	11:10
6	your own	DYI file to determine whether or not all	11:10
7	third-par	ty behavioral data is included in it?	11:10
8	Α.	I can, but not right now.	11:10
9	Q.	Okay. Right.	11:10
10		Okay. Give me a moment here.	11:10
11			
		I	
			Page 104

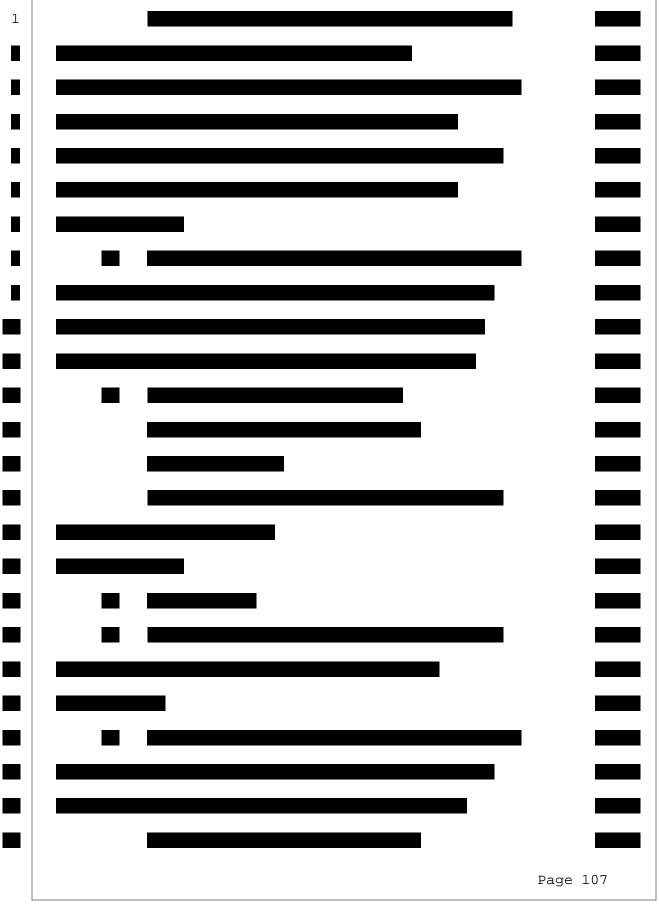
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### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 107 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 108 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



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1		
		11:15
13	Q. Okay. And is it contained in the DYI	11:15
14	file?	11:15
15	A. That how is that relevant for you?	11:15
16	Q. I get to ask the questions.	11:16
17	A. No, I mean I'm I'm thinking loudly.	11:16
18	That a user's information, when it is so the	11:16
19	okay. So let me take a step back.	11:16
20	That data that we are talking about are	11:16
21	anonymized. They are not associated with a given	11:16
22	user. And so it wouldn't show up in a in user's	11:16
23	DYI file.	11:16
24	Q. Okay. And when	11:16
25	MS. STEIN: I'm just waiting for my feed	
		Page 108

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 110 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	here.	
2	Oh, could you read his answer back,	
3	please.	11:16
4	(The record was read by the	11:17
5	court reporter, as requested)	11:17
6	BY MS. WEAVER:	11:17
7	Q. And what do you mean by "associated"?	11:17
8	A. Like we have a broad understanding of who	11:17
9	lives in San Francisco but we don't know exactly who	11:17
10	lives in San Francisco.	11:17
11	Q. Okay. But the data's collected from	11:17
12	individual users, right?	11:17
13	A. It depends.	11:17
14	Q. On what?	11:17
15	A. It depends on whether the data has been	11:17
16	collected because some are explicitly said "I live	11:17
17	in San Francisco." Some people have their hometown	11:17
18	identified on Facebook, some people don't.	11:17
19	Q. Right, but it's still one individual. The	11:17
20	source of the the originally is one user,	11:17
21	right?	11:17
22	MS. STEIN: Objection to form.	11:17
23	BY MS. WEAVER:	11:17
24	Q. Because either I live in San Francisco or	11:17
25	I indicated I mean, all of this data comes from	11:17
	Page	109
I		

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 111 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	individuals, right?	11:17
2		
		11:18
6	Q. Okay. So let's okay. Let's talk	11:18
7	A. Like you have defined San Francisco	11:18
8	Q. Right.	11:18
9	A to be your hometown.	11:18
10	Q. Perfect.	11:18
11	A. Okay.	11:18
12	Q. So it's associated with me initially,	11:18
13	right?	11:18
14	A. You have specifically suggested to your	11:18
15	Facebook friends by basically filling in that	11:18
16	specific field that Facebook asked you to do that	11:18
17	your hometown is San Francisco. You may live in	11:18
18	Denver, but your hometown appears to be	11:18
19	San Francisco.	11:18
20	Q. Okay. So an algorithm runs on this data	11:18
21	and it creates an ad cluster and puts me when	11:18
22	does it become disassociated with me? Because it	11:18
23	was initially associated, correct?	11:18
24	A. That association will never cease to exist	11:18
25	unless you basically go there and suggest that you	11:18
	Page	110

# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 112 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	move to Denver.	11:18
2	Q. Okay. I'm just honestly, K.P., I'm	11:18
3	trying to understand your answer.	11:18
4	You said the data that we are talking	11:18
5	about is not associated with specific users. We	11:18
6	just talked about	11:19
7	A. Yes, please.	11:19
8	Q it was associated with an individual	11:19
9	user because they're from San Francisco.	11:19
10	A. Yes.	11:19
11	Q. So when does it become disassociated?	11:19
12		
		11:19
18	Q. Okay. And	11:19
19	A. So no, no, no. Sorry. I have to	11:19
20	be super precise here.	11:19
21	There are two kinds of native data. There	11:19
22	are native data that come because you have, as a	11:19
23	user, indicated that your hometown is San Francisco.	11:19
24	Q. Right.	11:19
25	A. And there is native data that comes from	11:19
	Page	e 111

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 113 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	your activity. So if hypothetically speaking, I	11:19
2	don't I don't know exactly what period of time we	11:19
3	are going to be looking at, but let's say for the	11:19
4	last three the last 30 days you have accessed	11:19
5	Facebook from an IP address in in San Francisco,	11:19
6	that is still, according to our definition, native	11:19
7	data. But it's it's not data that's it's	11:19
8	directly explicitly, you know, like, documented by	11:19
9	the user, but it's in data inferred by their	11:20
10	activity.	11:20
11	Q. Okay. And so the	11:20
12	A. Still native.	11:20
13	Q. I understand.	11:20
14	By the way, would you use a different word	11:20
15	than native data? Is there another way to reference	11:20
16	that?	11:20
17	A. I would probably use on-site activity.	11:20
18	Q. On-site activity?	11:20
19	A. Versus off-site activity.	11:20
20	Q. Okay. Perfect.	11:20
21	Do you would you use the the words	11:20
22	"appended data" or is there another term for that?	11:20
23	A. I haven't heard that term until recently.	11:20
24	Until this	11:20
25	Q. Okay. Do you have another understanding	11:20
	Page	112

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 114 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	of how p	eople at Facebook refer to it?	11:20
2	Α.	Customer data provided by third parties or	11:20
3	somethin	g	11:20
4	Q.	Okay.	11:20
5	Α.	like that.	11:20
6	Q.	All right. And then what about behavioral	11:20
7	data; is	there another term of art at Facebook used	11:20
8	to refer	ence that?	11:20
9	Α.	That's my definition of offline activity.	11:20
10	Q.	Offline activity. Okay.	11:20
11	Α.	Oh, sorry, off-site activity.	11:20
12	Q.	Off-site. I see. Okay.	11:20
13			
			11:21
24	A.	Okay. At the very high level, if we are	11:21
25	talking	about the specific scenario that a business	11:21
			Page 113
	L		

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 115 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	that is operating in San Francisco wants to target	11:21
2	users in San Francisco, they will run the campaign	11:21
3	for, let's say, two days; they will target specific	11:21
4	users that live in that area. They may target only	11:21
5	females or only men, people of a certain age, people	11:21
6	of a certain profession, depending on, you know,	11:21
7	like, what sort of campaign they want to run, right?	11:21
8	So that will all be effectively identified	11:21
9	as a potential audience of, let's say for the sake	11:21
10	of the argument, 20,000 users. They still have no	11:22
11	access to the information. They only understand	11:22
12	what is the potential audience their ad campaign can	11:22
13	reach.	11:22
14	And then when they start, you know, like,	11:22
15	placing the advertisement, then their advertisement	11:22
16	is going to go into an auction. That auction may	11:22
17	actually, you know, allow others to beat against	11:22
18	that same audience. So if there is a competitor of	11:22
19	this service, or another service that wants to	11:22
20	target people with similar characteristics that live	11:22
21	in San Francisco, they may or may not see the first	11:22
22	ad. So it's the highest bidder that will have the	11:22
23	ad show up.	11:22
24		
		11:22
	Pag	e 114

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 116 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1		11:22
2	Q. Okay. So let me ask this: So I'm say	11:22
3	I'm being targeted in that ad campaign. Is there a	11:22
4	way for me to find out that I was targeted by those	11:22
5	categories that the advertiser chose?	11:22
6	A. You can see it only if that ad campaign	11:23
7	shows up to you.	11:23
8	Q. Okay. And only in realtime? And there's	11:23
9	no record of it after that?	11:23
10	A. I think you can actually see the the	11:23
11	information in realtime. But if you go to the DYI	11:23
12	file, you can see probably ad campaigns that you	11:23
13	have been displayed or you have seen yourself, or	11:23
14	you have clicked.	11:23
15	Q. Okay. But if they were	11:23
16	A. You know	11:23
17	Q targeted to me and I didn't take an	11:23
18	action, it's not in the DYI file; is that right?	11:23
19	A. You you will see the ad campaigns that	11:23
20	ended up showing up on your feed, but you wouldn't	11:23
21	see any ad campaigns that, for whatever reason, you	11:23
22	haven't seen, because there was another advertiser	11:23
23	that won the bid.	11:23
24	Q. Got it.	11:23
25	And so let's talk about the information	11:23
	Page	115

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 117 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	that is used to create the derived data. How do you	11:23
2	determine what information can be used to apply	11:24
3	those algorithms?	11:24
4	A. I need to clarify that question.	11:24
5	Q. Yeah, it's so is only public	11:24
6	information used to create derived data?	11:24
7	MS. STEIN: Objection to form.	11:24
8	THE WITNESS: Okay. So are you talking	11:24
9	about derived data in the context of location, or	11:24
10	you're talking about derived data broadly?	11:24
11	BY MS. WEAVER:	11:24
12	Q. Well, what is derived data broadly?	11:24
13	A. I mean, I don't know of any use of derived	11:24
14	data broadly, but I'm trying to understand exactly	11:24
15	how you want me to answer the question in a	11:24
16	thoughtful way.	11:24
17		
	Page	116

# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 118 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Q. But at large, is it fair to say that	11:25
2	derived data is created through algorithms running	11:25
3	on realtime data?	11:25
4	MS. STEIN: Objection to form.	11:25
5	THE WITNESS: I cannot talk about that.	11:25
6	But derived data is a a broad, you know, like,	11:25
7	industry term that you can use, and it's a legal	11:25
8	term as well, as far as I understand. It can be	11:25
9	used in different context and it doesn't always	11:25
10	require realtime processing.	11:25
11	BY MS. WEAVER:	11:25
12	Q. Okay. So let's we can stick with your	11:25
13	example then if you like for now.	11:25
14	What if I sent a a private a message	11:25
15	in Facebook Messenger to one friend saying "I used	11:25
16	to live in San Francisco" and I've never posted	11:25
17	anything publicly about it. Is that information	11:25
18	used to create the derived data for ad clusters?	11:26
19	A. No.	11:26
20	Q. Why not?	11:26
21	A. That's a private conversation between you	11:26
22	and your friend	11:26
23	Q. Okay.	11:26
24	A that	11:26
25	Q. So how does the algorithm distinguish	11:26
		Page 117

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 119 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	let me ask this: When the data is being run on	11:26
2	algorithms, is it segregated by public or private	11:26
3	data?	11:26
4	A. So your definition of public or private is	11:26
5	what, if I may say?	11:26
6	Q. If a user designated something private or	11:26
7	restricted audience.	11:26
8	A. Okay. Let's take a little bit of a step	11:26
9	back. Because what we define as public data is	11:26
10	basically your first name, your last name, your	11:26
11	profile picture.	11:26
12	Q. Okay.	11:26
13	A. Anything else that comes with a an	11:26
14	audience selection doesn't necessarily belong	11:26
15	it's not necessarily by default public. It may have	11:26
16	a limited audience. It may be just you, if it's	11:26
17	things like your birthday, or it may be friends	11:27
18	or accessible to your friends.	11:27
19	What we always, you know, like, like to	11:27
20	suggest that communications that happen over	11:27
21	messenger is also by default private, meaning that	11:27
22	it's the content of your exchanges with your	11:27
23	friends belong to you and your friends. So that	11:27
24	wouldn't be considered public information. But it	11:27
25	wouldn't be considered necessarily private	11:27
	Page	118

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 120 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	information because it's not accessible by anybody	11:27
2	in that it's a private conversation but it's not	11:27
3	private data in that sense.	11:27
4	Q. And when Facebook is, let's say we can	11:27
5	just stick with your ad clusters example. When it	11:27
6	is using the algorithm to create derived data, such	11:27
7	as ad clusters, is it using that world of	11:27
8	information that you just described that is not	11:27
9	public?	11:27
10	A. We would be using native data such as your	11:27
11	registered home location and things like your IP	11:28
12	address to determine where you live.	11:28
13	Q. Okay. But what I'm trying to say is	11:28
14	and I gave you a different example. So if you	11:28
15	could, just follow my example. Okay.	11:28
16	A. We wouldn't. I think I made	11:28
17	Q. Okay.	11:28
18	A that point that	11:28
19	Q. When I when I look	11:28
20	A you telling your friends you live in	11:28
21	San Francisco is your business and it's not for us	11:28
22	to use in any kind of ads.	11:28
23	Q. Okay. And that's because reading messages	11:28
24	and using that content and making it available to	11:28
25	advertisers would violate Facebook's policies,	11:28
	Page	119

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 121 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	right?	11:28
2	A. Reading private communications between you	11:28
3	and your friends would be a violation of our	11:28
4	commitment to your privacy.	11:28
5	Q. Okay. Switching topics just for a second.	11:28
6	You know what capabilities are; is that	11:28
7	right?	11:29
8	A. In what	11:29
9	Q. In connection with in connection with	11:29
10	APIs?	11:29
11	A. Yes, I do.	11:29
12	Q. Okay. Sorry.	11:29
13	So are you familiar with the read stream	11:29
14	capability?	11:29
15	A. Read stream is an API but there is an	11:29
16	associated capabilities.	11:29
17	Q. Yeah. And what is that?	11:29
18	A. It's an API that allows a third party to	11:29
19	access someone's News Feed.	11:29
20	Q. Okay. And what does "read stream" mean in	11:29
21	particular?	11:29
22	A. It's a very poorly, you know, like,	11:29
23	defined	11:29
24	Q. It should probably be for the period 2012	11:29
25	to 2017.	11:29
	Pag	ge 120

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 122 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	A. Yes. So the News Feed is also referred as	11:29
2	stream.	11:29
3	Q. Uh-huh.	11:29
4	A. And that API and the corresponding	11:29
5	capability effectively describes the ability to read	11:29
6	the stream.	11:29
7	Q. Okay.	11:29
8	A. In other words, read the News Feed.	11:29
9	Q. Okay. And are you aware at any point in	11:30
10	time if third parties were allowed to read Facebook	11:30
11	Messenger messages?	11:30
12	MS. STEIN: Objection.	11:30
13	BY MS. WEAVER:	11:30
14	Q. Through through API capabilities?	11:30
15	MS. STEIN: Objection to form. And we're	11:30
16	talking about 2012 to 2017.	11:30
17	You may answer.	11:30
18	THE WITNESS: Between 2012 and 2017, I	11:30
19	don't think we made the the Messenger API the	11:30
20	current version of the Messenger API available.	11:30
21	THE REPORTER: I'm sorry. That that	11:30
22	THE WITNESS: So I'm between 2012 and	11:30
23	2017, the current version of the Messenger API was	11:30
24	not available. I think the only way for third	11:30
25	parties to access Messenger was through the Inbox	11:30
	Page	121

# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 123 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	API.	11:30
2	MS. WEAVER: I'm sorry, I just need to	11:30
3	look really quickly.	11:31
4	Q. What is the Inbox API?	11:31
5	A. It's an API that allows a third party to	11:31
6	access a user's Messenger conversation.	11:31
7	Q. Okay. And what do those third parties	11:31
8	strike that.	11:31
9	What access were they given to	11:31
10	A. So the third	11:31
11	Q use Messenger conversation?	11:31
12	A. Yeah. The third parties that had access	11:31
13	to the Inbox API were app third parties that	11:31
14	replicated core Facebook functionality, including	11:31
15	messaging. So we call those integrations device	11:31
16	integrations because they were replicating	11:31
17	Facebook the Facebook app.	11:31
18	Q. Are you aware are you familiar with the	11:31
19	company Royal Bank of Canada, RBC?	11:31
20	A. Yes. Yes.	11:31
21	Q. Did did they have access to Messenger	11:31
22	inboxes during this time period?	11:32
23	A. They had the access to an API that allowed	11:32
24	them to write into someone's inbox.	11:32
25	Q. And why?	11:32
	Pa	age 122

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1	A. But	but not to read.	11:32
2	Q. Oka	y. And why	11:32
3	A. Why	?	11:32
4	Q	did they have that access?	11:32
5	A. Bec	ause we were testing the ability for a	11:32
6	Royal Bank of	Canada customer that wants to wire	11:32
7	money to frie	nds to tell them through Messenger that	11:32
8	they have suc	cessfully wired the money.	11:32
9			
21	A. I'm	sorry, there's a little bit of	11:33
22	background no	ise. I don't know where it's coming.	11:33
23	MS.	WEAVER: I think that's Ms. Stein.	11:33
24	But maybe not		11:33
25	MS.	STEIN: Sorry. Sorry.	11:33
		1	Page 123

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1		THE WITNESS: Oh. Okay.	11:33
2		MS. STEIN: I will I will mute. The	11:33
3	gardeners	are here. Hazards of	11:33
4		MS. WEAVER: Yes.	11:33
5		MS. STEIN: of COVID.	11:33
6			
18	Q.	your understanding.	11:34
19		Yes, sorry.	11:34
20	A.	So it's a it's a code that allows us to	11:34
21	understand	d who may be shown or seen in a picture, in	11:34
22	a photo.		11:34
23	Q.	Okay. And how does it work?	11:34
24	A.	Technically?	11:34
25	Q.	Yes.	11:34
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## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 126 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	А.	Through a combination of pattern matching	11:34
2	and other	characteristics.	11:34
3	Q.	Combination of? I just didn't understand	11:34
4	you. Coul	d you repeat it again.	11:34
5	Α.	Pattern matching.	11:34
6	Q.	Pattern	11:34
7	Α.	So we try to see patterns.	11:34
8	Q.	Pattern pattern matching?	11:34
9	Α.	Yes.	11:34
10	Q.	Okay. And what patterns? It's looking at	11:34
11	people's f	faces for those patterns; is that correct?	11:34
12	Α.	Yeah. Would analyze certain	11:34
13	characteri	stics of your face and try to, you know,	11:34
14	create a m	natching with a pattern. And then when we	11:35
15	see a simi	lar pattern, we can associate this back to	11:35
16	you.		11:35
17			
			Page 125

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 127 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Q. Do you what is Graph Search?	11:35
2	A. Graph Search is our own version of	11:35
3	searching within the graph.	11:35
4	Q. And what do you mean by graph?	11:35
5	A. Everything at Facebook is the graph. Any	11:35
6	entity, any connection that's affecting the part of	11:35
7	the graph.	11:35
8	Q. Okay. Is it a relational database?	11:35
9	A. It's not a a database per se. The	11:35
10	graph is I don't know. It's a it's an	11:35
11	abstract thing that describes basically every single	11:36
12	connection and entity on on the platform.	11:36
13	Q. Okay. So if somebody is using Graph	11:36
14	Search, they are searching all over Facebook's	11:36
15	entire network; is that right?	11:36
16	A. Sort of, because there may be exceptions	11:36
17	to that. Like people that opt out from	11:36
18	Q. Okay.	11:36
19	A from that they wouldn't have their	11:36
20	results in that.	11:36
21	Q. If people opt out, are they still in the	11:36
22	graph?	11:36
23	A. They can opt out from being discovered	11:36
24	through Graph Search.	11:36
25	Q. But they're still in the graph?	11:36
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1	A. But they are still in the graph, yes.	11:36
2	Q. Is there any way to be removed from the	11:36
3	graph?	11:36
4	A. You have to delete your Facebook account.	11:36
5	Q. Okay. And if I go to delete my Facebook	11:36
6	account, what is deleted? Is all the data relating	11:36
7	to me deleted?	11:36
8	A. Your interactions with public entities	11:36
9	will not be deleted.	11:36
10	Q. So how do you identify all of the data to	11:37
11	delete?	11:37
12	A. My my response would be anything that	11:37
13	lives in the "Download Your Information" file is	11:37
14	going to disappear.	11:37
15	Q. What about all the rest of the data in the	11:37
16	graph?	11:37
17	A. Again, the only exception here would be,	11:37
18	you know, like, your interactions with public	11:37
19	entities. If you end ended up commenting on	11:37
20	United's page you didn't like their service, that	11:37
21	is, by default, public and is not personal	11:37
22	information. And, to some extent, it belongs also	11:37
23	to United because you did that on their entity.	11:37
24	Q. So	11:37
25	A. But pretty much every everything else	11:37
	Page	127

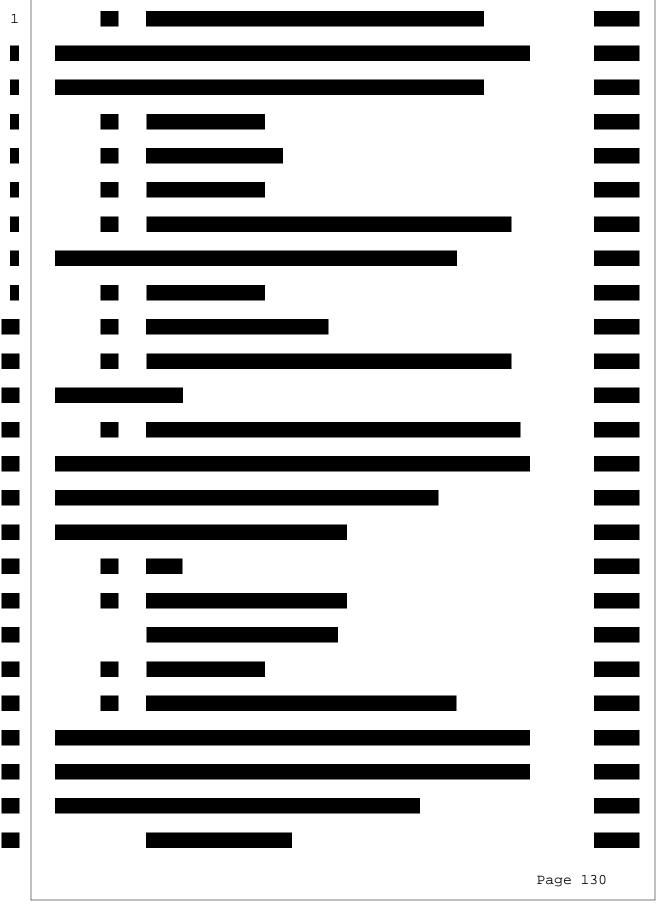
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 129 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	that is associated to you will be deleted.	11:37
2	Q. Okay. And when you say "is associated to	11:37
3	me, what do you mean?	11:37
4	A. Any kind of on-site or off-site activity.	11:37
5	Q. What about derived data?	11:37
6	A. The derived data, again, if we are talking	11:38
7	about location? Are we?	11:38
8	Q. No. Just in general. Derived data in	11:38
9	general.	11:38
10	A. Oh. In general?	11:38
11	Q. Yeah.	11:38
12	A. Derived data may be your interest like we	11:38
13	discussed before that may be inferred from you	11:38
14	liking Beyonce's page, that will show up in the DYI	11:38
15	file. So, yes, they will be deleted.	11:38
16	Q. Okay. You you referred earlier to data	11:38
17	that is not associated with individuals. Do you	11:38
18	recall that?	11:38
19	A. I need to play back my you know, like,	11:38
20	my sentence. Okay. What about it?	11:38
21	Q. You okay. So there is data that is not	11:38
22	associated with individual users; is that right?	11:38
23	A. Overall?	11:38
24	Q. Yes.	11:38
25	A. Yes, we we do have some information	11:38
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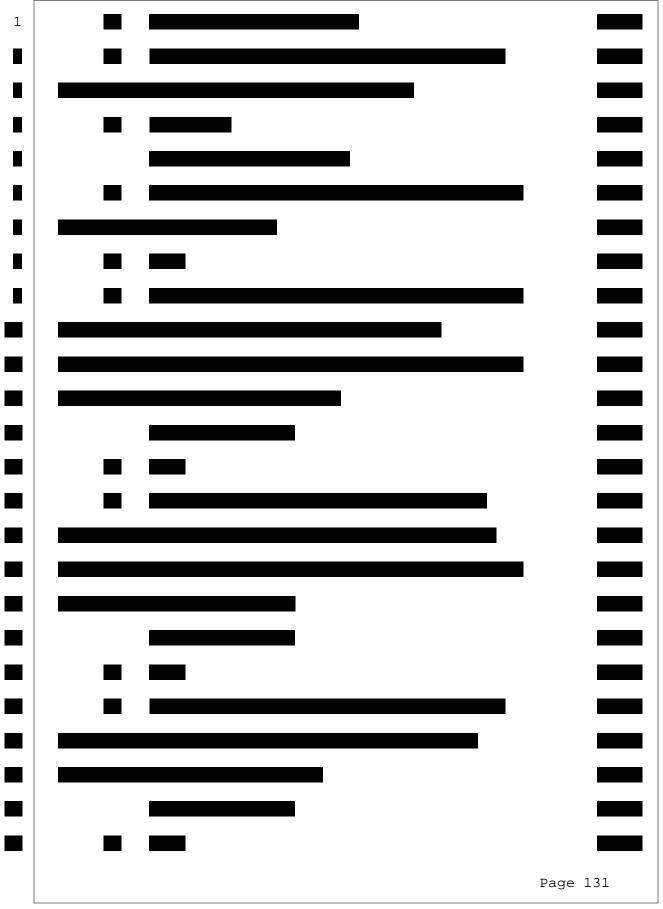
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 130 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	that is not associated with specific users.	11:38
2	Q. Right.	11:38
3	A. Like United's page on Facebook is not	11:38
4	associated with specific users.	11:38
5	Q. Okay. We'll put a pin in this and we'll	11:38
6	come back to it. Because I think really drilling in	11:39
7	on what Facebook can identify about me specifically	11:39
8	is at the heart of this deposition.	11:39
9		
	Page	= 129

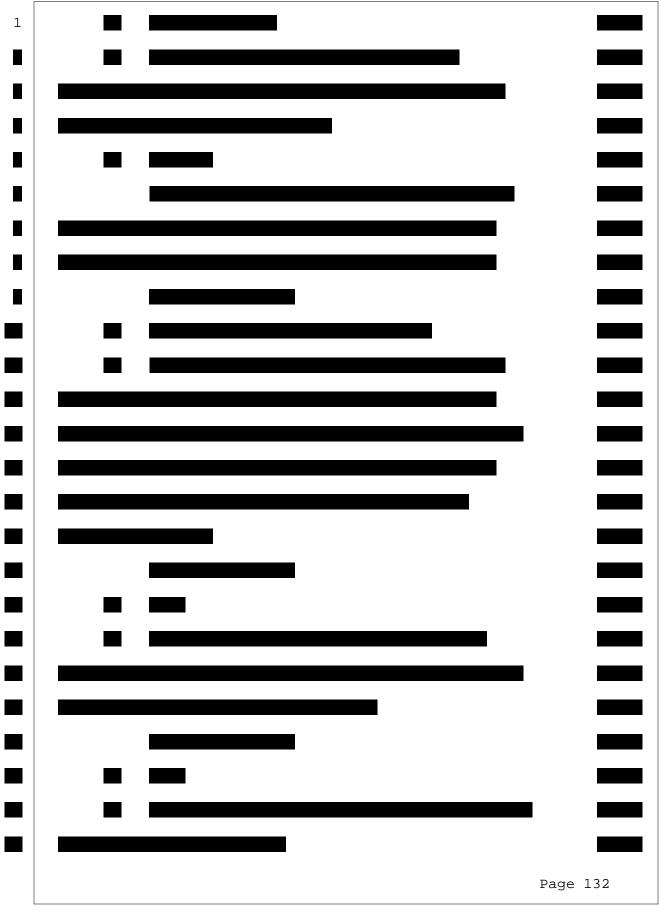
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 131 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



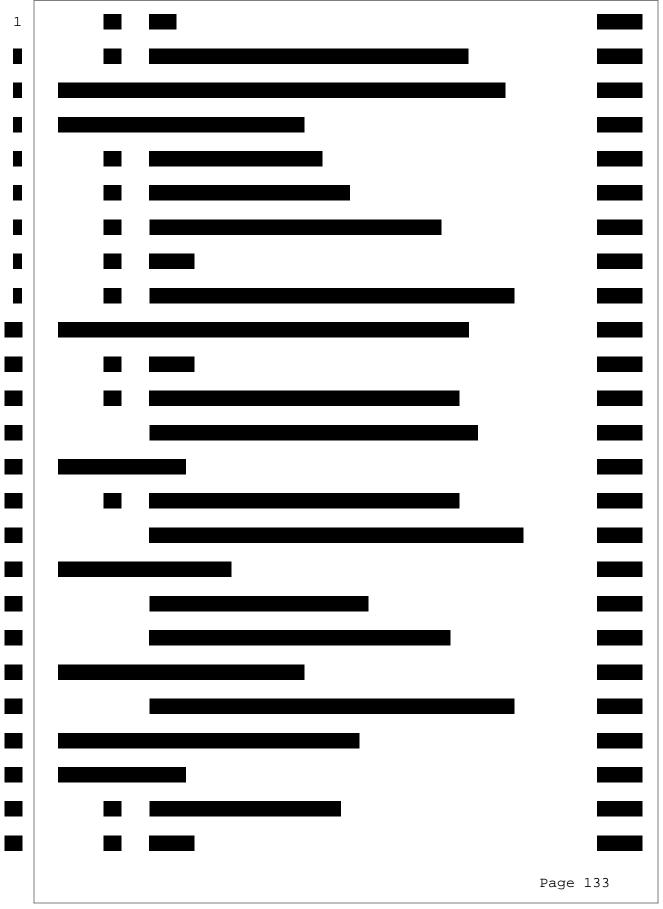
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 132 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



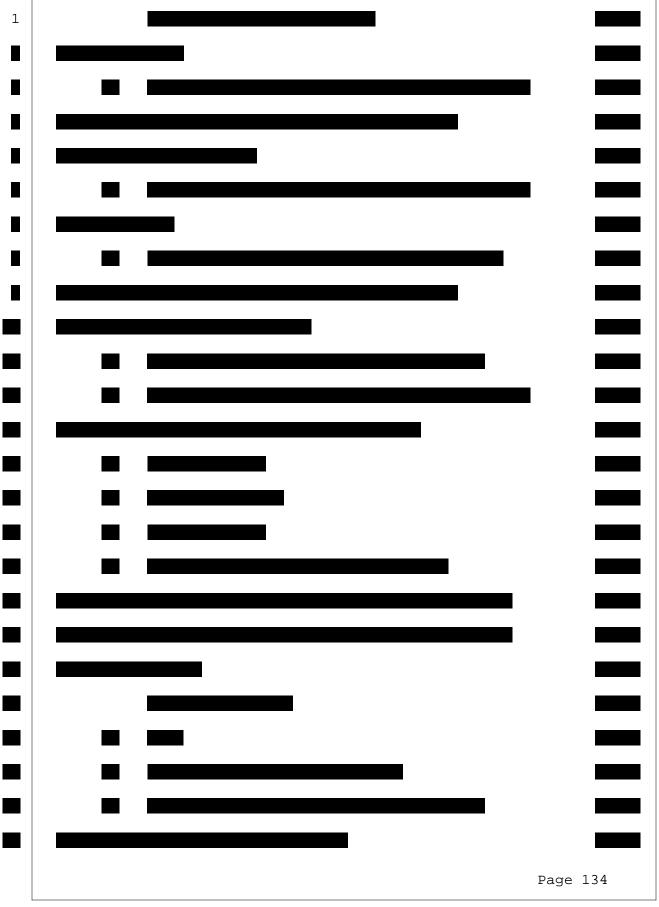
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 133 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



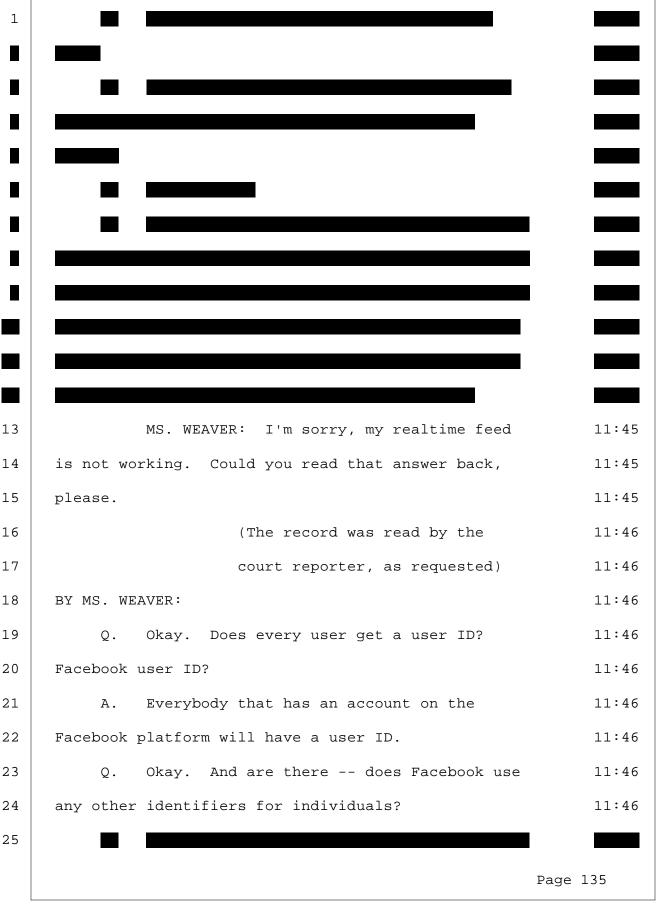
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 134 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



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MS. WEAVER: We should probably slow down	11:46
because we're making our court reporter's life	11:46
miserable.	11:46
THE WITNESS: Sorry. I will I will.	11:46
MS. WEAVER: No. It's my fault, too.	11:46
Q. Okay. What is the purpose of a user ID?	11:46
MS. STEIN: Objection to form.	11:46
THE WITNESS: Are you talking specifically	11:47
about the Facebook user ID?	11:47
BY MS. WEAVER:	11:47
Q. Yes.	11:47
A. It's to uniquely identify a user within	11:47
our own systems.	11:47
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	because we're making our court reporter's life miserable.  THE WITNESS: Sorry. I will I will.  MS. WEAVER: No. It's my fault, too.  Q. Okay. What is the purpose of a user ID?  MS. STEIN: Objection to form.  THE WITNESS: Are you talking specifically about the Facebook user ID?  BY MS. WEAVER:  Q. Yes.  A. It's to uniquely identify a user within

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 138 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Q. And among the data Facebook collects from	11:47
2	apps developed with its API is is also app users'	11:47
3	IP addresses, right?	11:47
4	A. The SDK will pass (inaudible)	11:47
5	THE REPORTER: I'm sorry. One more time.	11:47
6	THE WITNESS: Sorry. I'm talking	11:47
7	technical terms here. That's probably why.	11:47
8	The SDK will pass that information.	11:47
9	BY MS. WEAVER:	11:47
10	Q. Okay. So the platform that an app	11:47
11	developer uses to send data will also send a user's	11:47
12	IP address; is that correct?	11:47
13	MS. STEIN: Objection to form.	11:47
14	THE WITNESS: It depends.	11:47
15	BY MS. WEAVER:	11:47
16	Q. Well, I was just trying to say instead	11:47
17	of saying SDK, I was trying to put what you said	11:47
18	into English, so	11:48
19	A. Yes, but there is nuance here. Because it	11:48
20	may be the IP address of the app's back-end servers	11:48
21	or the IP address of the phone, depending on when	11:48
22	the call, the API call is initiated from.	11:48
23	Q. Okay. And the data Facebook collects from	11:48
24	apps also includes this unique user-specific	11:48
25	advertiser ID; is that right?	11:48
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1	A. No.	11:48
2	Q. It does not?	11:48
3	A. That's not correct.	11:48
4	Q. What is incorrect?	11:48
5	A. It's a time you log in with an app using	11:48
6	Facebook, there is a unique identifier that is	11:48
7	mapped against your Facebook ID but is not the same.	11:48
8	And it's unique to the app.	11:48
9	Q. Okay. Fair enough.	11:48
10	And what would you call that?	11:48
11	A. It's called app-scoped ID.	11:48
12	Q. Okay. That's an app-scoped ID.	11:48
13	And then are apps themselves also assigned	11:48
14	separate identifiers?	11:49
15	A. Depends on their architecture.	11:49
16	Q. Okay. So some do and some don't; is that	11:49
17	right?	11:49
18	A. Yeah. For example, if an app only uses	11:49
19	Facebook as the only way to authenticate people,	11:49
20	they may as well use the app-scope ID as their only	11:49
21	identifier. But if an app uses different	11:49
22	authentication systems from, like, Google or Apple,	11:49
23	or even email passwords, they would probably have an	11:49
24	additional identifier in order to capture all	11:49
25	different ways of authentication.	11:49
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## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 140 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Q. Okay. And when you say authenticate, what	11:49
2	do you mean?	11:49
3	A. Apps that require you to create an	11:49
4	account, which allow you to create an account	11:49
5	upfront, and then every time you try to log in back	11:49
6	to that app will authenticate you based on that	11:49
7	account you have created.	11:50
8	Q. Okay. So is all data that's associated	11:50
9	with a user linked through that user's user ID?	11:50
10	MS. STEIN: Objection to form.	11:50
11	THE WITNESS: I'm sorry. Is it in the	11:50
12	context of Facebook or third-party apps?	11:50
13	BY MS. WEAVER:	11:50
14	Q. Let's do Facebook for now.	11:50
15	A. And so all the data that we have been	11:50
16	talking about this morning, native data, behavioral	11:50
17	data, will be associated back to that Facebook user	11:50
18	ID.	11:50
19	Q. I'm sorry, I just didn't hear what	11:50
20	A. The behavioral data	11:50
21	Q. Would be associated yes. Okay.	11:50
22	Perfect.	11:50
23	And how is that mapping accomplished? Is	11:50
24	every data point that's pulled in assigned to the	11:50
25	user ID?	11:50
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1	MS. STEIN: Objection to form.	11:50
2	THE WITNESS: So in my so you use Word	11:50
3	With Friends and you have created an account using	11:51
4	Facebook. The app developer will make an API call	11:51
5	the next time you try to open the app and	11:51
6	authenticate yourself. The information that they	11:51
7	are going to be passing back to us is your app-scope	11:51
8	ID.	11:51
9	BY MS. WEAVER:	11:51
10	Q. Uh-huh.	11:51
11	A. And we are going to basically confirm to	11:51
12	them, that, yes, this is a user; that you have	11:51
13	previously authenticated successfully and they	11:51
14	should be logged in.	11:51
15	Q. Okay.	11:51
16	A. Now, what what we are getting from the	11:51
17	app developer is your app-scoped ID. And what we	11:51
18	basically do is map it on our end with the Facebook	11:51
19	User ID.	11:51
20	Q. Okay. And what about appended data? Is	11:51
21	that mapped information received about users from	11:51
22	third parties, what do you call that again?	11:51
23	Off-site? No, that's behavioral.	11:52
24	A. Yeah, so this is	11:52
25	Q. Off-platform?	11:52
	Pa	age 140

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1	A. Off-platform, yes.	11:52
2	Q. So is off-platform data received about	11:52
3	users attached to a Facebook user ID as well?	11:52
4	A. I'm trying to think. No. My	11:52
5	understanding is that that's not the kind of data	11:52
6	that would be associated with a specific user	11:52
7	profile because they are for the purposes of	11:52
8	creating ad campaigns.	11:52
9	Q. Okay. So what we were about to get into	11:52
10	here, and we can read the document, but I'll just	11:52
11	ask you. At some point Facebook aggregates data,	11:52
12	right? It receives data from advertisers or data	11:52
13	brokers or apps about their activities off-site,	11:52
14	correct?	11:52
15	A. Yes.	11:52
16	Q. And then it also possesses information	11:52
17	about users, correct?	11:53
18	A. The possession is not really the right	11:53
19	term, but I understand, I think, what you are	11:53
20	saying.	11:53
21	Q. Okay. And so how does and Facebook	11:53
22	also aggregates this data? It brings the data	11:53
23	together; is that correct?	11:53
24	A. Yes.	11:53
25	MS. STEIN: Objection to form.	11:53
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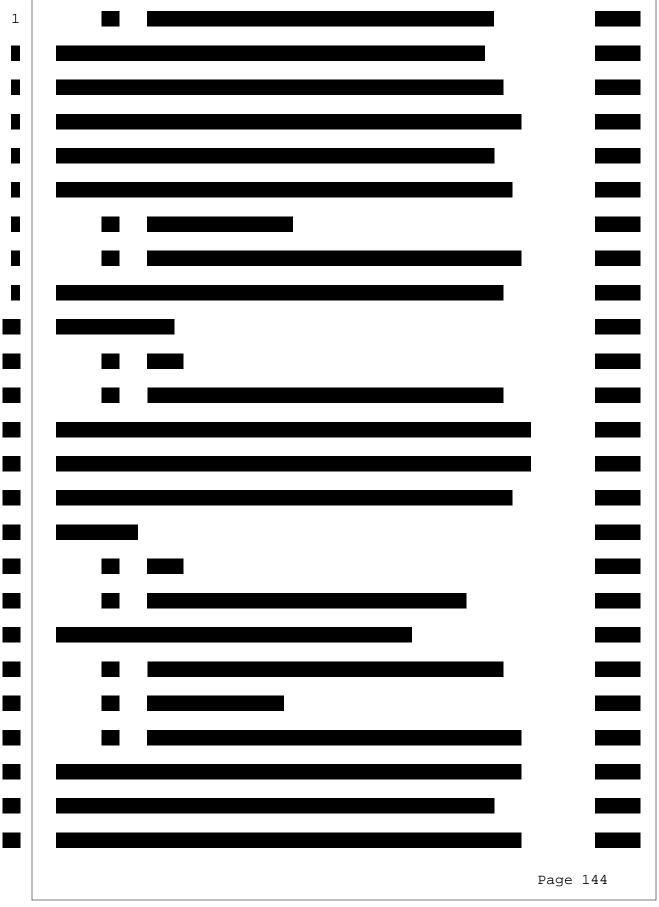
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1	THE REPORTER: I'm sorry, was there an	11:53
2	objection?	11:53
3	MS. STEIN: I said "Objection to form."	11:53
4	THE REPORTER: Thank you.	11:53
5	BY MS. WEAVER:	11:53
6	Q. How does Facebook authenticate or match	11:53
7	the data that it's receiving off-site to the data	11:53
8	that it possesses on-site itself?	11:53
9	A. Back to the previous example. The ID of	11:53
10	that user will be mapped to a user ID. If a third	11:53
11	party is sending information via SDK or a pixel and	11:53
12	that association will be, I guess let me see.	11:53
13	That's probably poor framing.	11:54
14	The association will happen at the user ID	11:54
15	level.	11:54
16	Q. Okay.	11:54
17	So with a user ID you could you should	11:54
18	be able to identify off-site data and data that	11:54
19	Facebook already possessed because of Facebook	11:54
20	activity, correct?	11:54
21	MS. STEIN: Object to form.	11:54
22	THE WITNESS: Yes, but that's not	11:54
23	different from what's available in your DYI file.	11:54
24	MS. WEAVER: I'll move to strike. That's	11:54
25	not what I'm asking.	11:54
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1	Q. I'm just trying to understand how Facebook	11:54
2	aggregates data.	11:54
3	So what is a cross-app identifier?	11:54
4		
7	A. I think it refers to an identity that	11:55
8	people have across their family of apps between	11:55
9	Instagram, Facebook, Messenger, and WhatsApp.	11:55
10	Q. Okay. So do you know what a hashed UID	11:55
11	is?	11:55
12	A. In the context of audience network?	11:55
13	Sorry. In audiences, as we discussed, advertisers	11:55
14	can upload hashed email addresses or hashed phone	11:55
15	numbers. They will then be associated with specific	11:55
16	users on our platform to the extent that they have	11:55
17	that information provided to us.	11:55
18		
	P	age 143

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1		
		11:57
3	Q. Okay. Is it true that the Facebook UID is	11:57
4	the same across all of the browsers and devices you	11:57
5	are logged into?	11:57
6	A. For what is for what is related to	11:57
7	Facebook, yes, that's true.	11:57
8	Q. Okay. And then how does just to return	11:57
9	to our discussion of app-scoped IDs, how does	11:57
10	mapping between user ID and app-scoped ID	11:57
11	accomplished? Is there a table?	11:57
12	A. So under your user settings you can see	11:57
13	your Facebook user settings you can see which apps	11:57
14	you have logged in, right? So there is an app-scope	11:57
15	ID for each one of those apps. And it should also	11:57
16	appear on your user profile.	11:58
17	THE REPORTER: I'm sorry, "also appear"	11:58
18	THE WITNESS: On the user profile.	11:58
19	BY MS. WEAVER:	11:58
20	Q. I'm sorry, I've lost	11:58
21	A. The user settings, whatever you want it.	11:58
22	Q. Okay. But it's not the DIY profile is	11:58
23	not doing the mapping. Facebook is doing the	11:58
24	mapping. Where is that done?	11:58
25	A. Facebook is doing the mapping ads and it's	11:58
	Pa	age 145

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1	captured in the DYI files.	11:58
2	Q. Okay. Forget the DIY file. Where how	11:58
3	does the mapping between the user ID and app-scoped	11:58
4	ID happen?	11:58
5	MS. STEIN: Objection to form.	11:58
6	THE WITNESS: Which server?	11:58
7	BY MS. WEAVER:	11:58
8	Q. Sorry?	11:58
9	A. Which server? I can't answer that	11:58
10	question.	11:58
11		
		11:58
17	MS. STEIN: Objection to form and	11:58
18	BY MS. WEAVER:	11:58
19	Q. Is there	11:58
20	MS. STEIN: it's really beyond the	11:58
21	scope of this deposition at this point.	11:58
22	MS. WEAVER: Fully disagree. We are	11:59
23	trying to figure out what data can be produced for	11:59
24	nine plaintiffs.	11:59
25	MS. STEIN: You're asking about mapping of	11:59
	Page	146

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1	IDs.	11:59
2	MS. WEAVER: Exactly. I know that you	11:59
3	don't well, anyway.	11:59
4	Q. So let's continue.	11:59
5	A. It's don't worry.	11:59
6	Q. Thank you.	11:59
7	A. This is this is actually not very	11:59
8	complicated thing. Because we are issuing the	11:59
9	app-scope ID, so we don't need to do that mapping.	11:59
10	Q. I see. Okay. So it	11:59
11	A. We do the mapping when the developer	11:59
12	uses that app-scope ID when they make an API call.	11:59
13	But we are the ones giving them the app-scope ID.	11:59
14	Q. Okay. All right. Good. Thank you.	11:59
15	Let me turn to one other I apologize,	11:59
16	but I want to just stick with this.	12:00
17	Okay. So let's talk about hashing then	12:00
18	for a second. Is it true that Facebook well, is	12:00
19	hashing a one-way function?	12:00
20	A. I don't understand what you mean by that.	12:00
21	Q. Hashing is a process of assigning a	12:00
22	particular piece of data to I think Facebook	12:00
23	uses what's it called? shaw 256, which is an	12:00
24	algorithm	12:00
25	A. Yes.	12:00
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1	Q to assign, right? Okay.	12:00
2	So when Facebook hashes that data, is it	12:00
3	possible to reverse engineer and reidentify where	12:00
4	the data came from?	12:00
5	A. I don't know. I my technical knowledge	12:00
6	is not sufficient to answer that question.	12:00
7	Q. Okay. Can hash data be reidentified using	12:00
8	data stored on Facebook systems?	12:00
9	A. It's not meant to be, so I don't know.	12:00
10		
		12:01
17	Q. Okay. Are you aware of a rule that data	12:01
18	is hashed after 90 days?	12:01
19	A. In what context?	12:01
20	Q. I never mind. If you're not familiar	12:01
21	with it, it's fine.	12:01
22	Is a reidentifier assigned to hashed data?	12:01
23	A. I think you may be referring I'm	12:01
24	double-guessing. So give me an honest if I'm	12:01
25	going through an account I think you are	12:02
	Pa	ge 148

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1	referring to the deletion of an account and our	12:02
2	ability to preserve the data for 90 days in this	12:02
3	kind of semi state in case they change their minds.	12:02
4		
		12:02
7	to people to change their minds within a certain	12:02
8	time frame in case they want to restore in their	12:02
9	Facebook account.	12:02
10		
		12:02
13	MS. STEIN: Objection to form.	12:02
14	THE WITNESS: I don't know.	12:02
15	MS. WEAVER: What was the objection?	12:02
16	MS. STEIN: Objection to form.	12:02
17	MS. WEAVER: What was the basis?	12:02
18	MS. STEIN: I find your question confusing	12:02
19	and overbroad.	12:02
20	MS. WEAVER: Okay. Just wanted to make	12:02
21	sure you weren't coaching the witness.	12:02
22	MS. STEIN: I'm saying "Objection to	12:02
23	form."	12:02
24	Lesley, please stop with your coaching	12:02
25	objections. I've not made a lot of objections and	12:03
	Pa	ıge 149

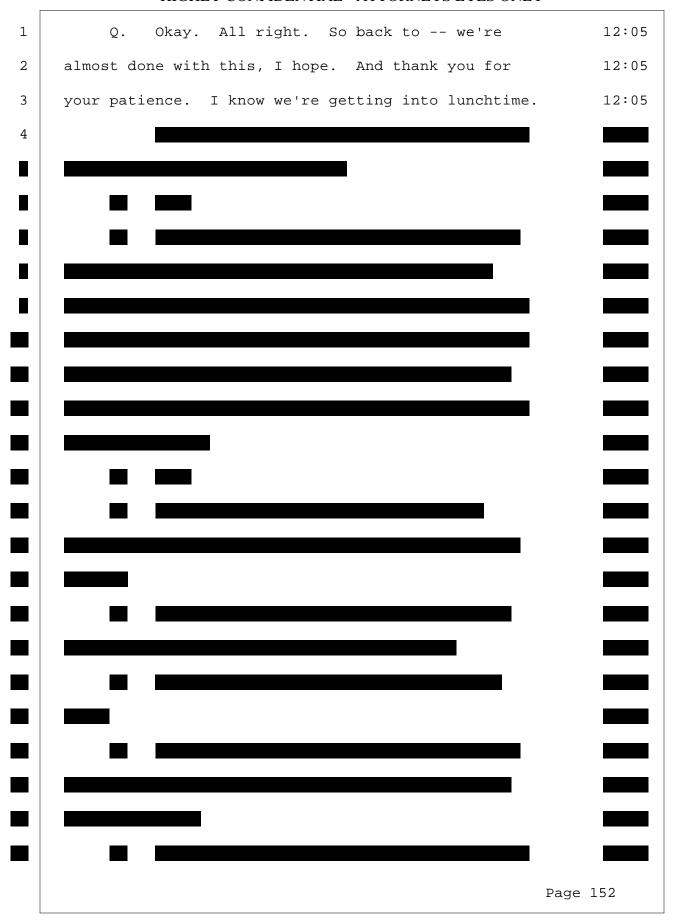
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1	they're almost always just objection to form.	12:03
2	BY MS. WEAVER:	12:03
3	Q. Are any outputs or products like interests	12:03
4	generated from hashed data?	12:03
5	A. No.	12:03
6	Q. Is information collected from hashed data?	12:03
7	A. The hashed data, at least in the context	12:03
8	of custom audiences we have been talking about, it's	12:03
9	not collected. It's meant to allow us for analysis.	12:03
10	Q. For analysis on it; is that right?	12:03
11	A. To create a custom audience.	12:03
12	Q. Okay. And that would include, for	12:03
13	example, interests is that right? an interest	12:03
14	category?	12:03
15	A. That depends on the advertiser. The	12:03
16	advertiser may have the ability for themselves to	12:03
17	create the custom audience based on interests that	12:03
18	they have collected on their ends but not on our	12:03
19	on our end.	12:03
20	Just to make sure that we understand what	12:04
21	we're talking about here. If you're actively	12:04
22	listening on Beyonce on Spotify, and you're probably	12:04
23	not the only one, Spotify can create a custom	12:04
24	audience based on whoever listens to Beyonce's	12:04
25	tracks. That would be the custom audience based on	12:04
	Page	e 150

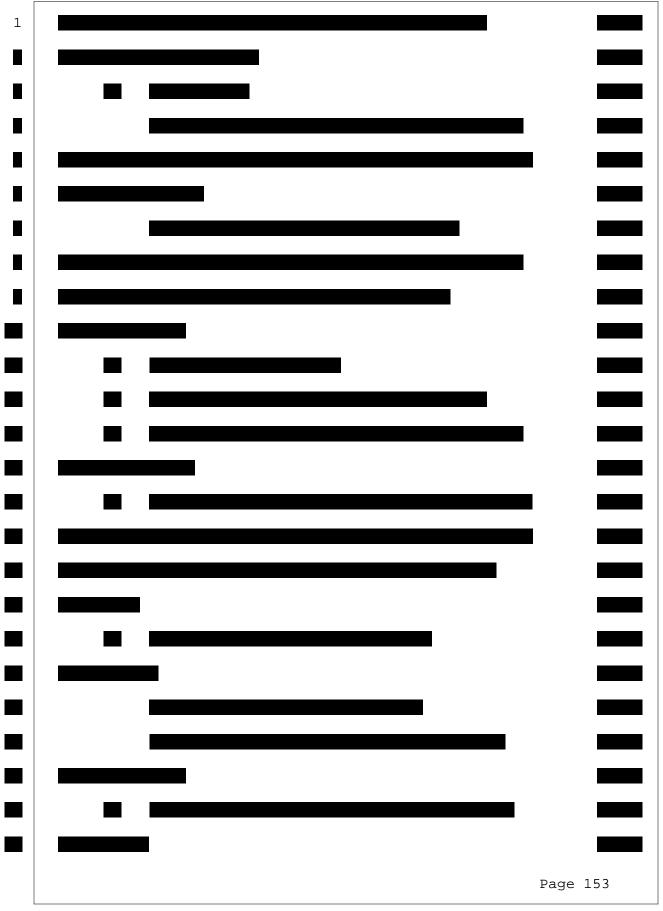
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 152 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	any interest, but an interest that is specific to	12:04				
2	Spotify. 12:04					
3	Q. Okay. 12:04					
4	A. But we have no access to that.	12:04				
5	Q. In your example, is the Beyonce, is	12:04				
6	that hashed data?	12:04				
7	A. If Spotify decides to run a custom	12:04				
8	audience campaign on Facebook for everybody that has	12:04				
9	been listening to Beyonce on Spotify, it would come	12:04				
10	in the form of hashed email addresses that we	12:04				
11	wouldn't necessarily have the ability to identify	12:04				
12	with specific users.	12:04				
13	Q. Okay. So for creating custom audiences	12:04				
14	are hash is hashed data combined with nonhashed	12:04				
15	or identified data such as the user profile?	12:04				
16	A. No. Why would we do that? It doesn't	12:05				
17	make sense. I mean from not even from a	12:05				
18	technical perspective. But not even for the purpose	12:05				
19	of running a successful campaign.	12:05				
20	Spotify wants to target specific users	12:05				
21	that are already on their platform for the purpose	12:05				
22	of retargeting. So there is no point in us, you	12:05				
23	know, like using any other data unless they	12:05				
24	specified into their app ad campaign. But that	12:05				
25	would be broader than just the custom audience.	12:05				
	Page	e 151				

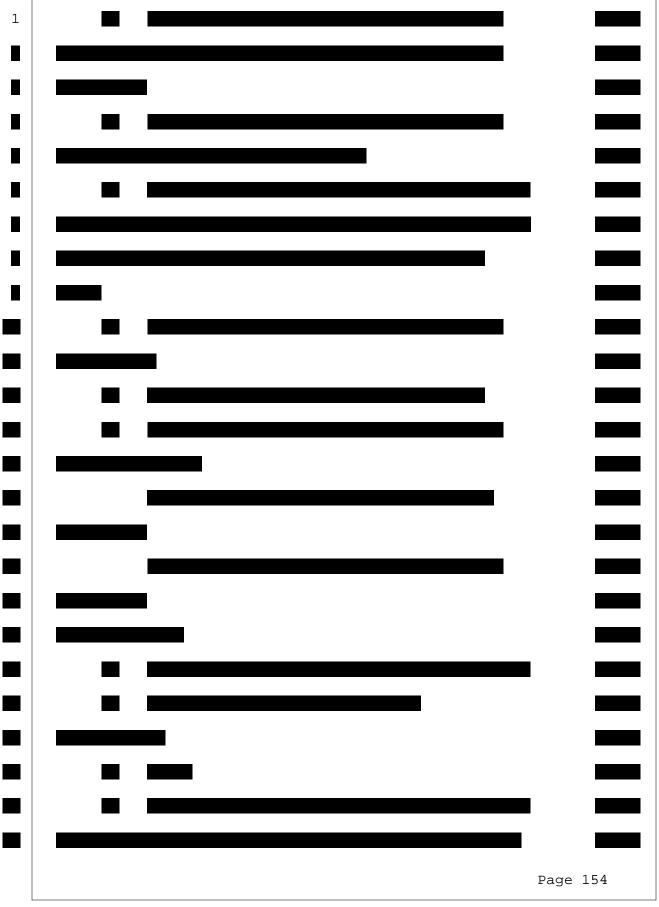
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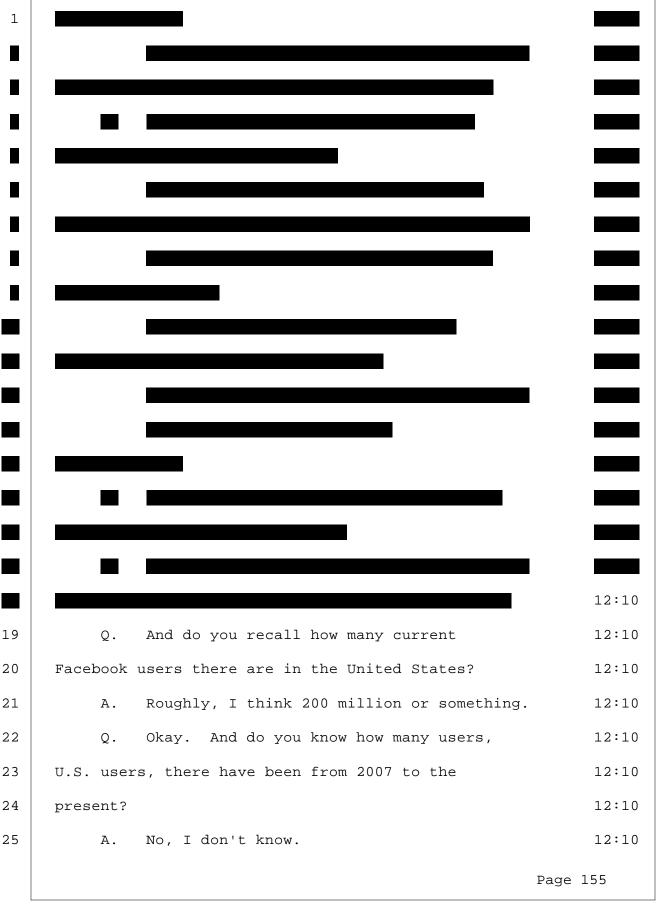
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1	MS. STEIN: Objection. Outside the scope.	12:10
2	BY MS. WEAVER:	12:10
3	Q. Do you know where in general user data is	12:10
4	stored? What's a UDB? Are you familiar with the	12:10
5	term?	12:10
6	A. No, but I suspect it means user database.	12:10
7	Q. And what is it?	12:10
8	A. I don't know.	12:10
9	Q. Does Facebook have user databases?	12:10
10	A. We have different databases where we store	12:10
11	information.	12:10
12	Q. Okay. Are you familiar with a database	12:10
13	called MySQL database?	12:11
14	A. Yes.	12:11
15	Q. What is it?	12:11
16	A. It's a database that stores different	12:11
17	kinds of information.	12:11
18	Q. What kind of information?	12:11
19	A. Different entities from users to	12:11
20	businesses and so on.	12:11
21	Q. Okay. So what specific information about	12:11
22	users does MySQL database store?	12:11
23	A. Anything related to your activity on the	12:11
24	platform is stored in MySQL.	12:11
25	Q. And how many databases support MySQL	12:11
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1	database? Is it one database or is it many?	12:11
2	A. So this is where I think where we are in	12:11
3	technical territory that I'm not well-placed to	12:11
4	respond. We are talking about database	12:11
5	architecture, which is not my area of expertise.	12:11
6	Q. Okay. Do you recall assisting well,	12:11
7	strike that.	12:12
8	Do you know what an interrogatory is?	12:12
9	A. Someone that has been interrogated.	12:12
10	Q. Fair enough. We received some written	12:12
11	responses about the location of user data, which is	12:12
12	at the square of this deposition. And Facebook	12:12
13	identified a few databases where it says user data	12:12
14	is stored. And I'm just asking if you are familiar	12:12
15	with them.	12:12
16	A. I'm aware of MySQL. I'm aware of Tao.	12:12
17	I'm aware of Hive databases where different kinds of	12:12
18	information is stored.	12:12
19	Q. Okay. I'm just trying to understand what	12:12
20	is stored in each of them.	12:12
21	A. Well, I can't tell you at a high level.	12:12
22	MS. STEIN: Lesley, he already testified	12:12
23	to this. He told you that this is beyond the scope.	12:12
24	MS. WEAVER: Please do not state for him.	12:12
25	Please provide me the information.	12:12
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1	MS. STEIN: No, Lesley, Lesley, I'm	12:12
2	allowed to make my objection. I'm not coaching the	12:12
3	witness.	12:12
4	MS. WEAVER: And that's a fact?	12:12
5	MS. STEIN: I'm about to tell you that the	12:12
6	interrogatories, the technical interrogatories, were	12:12
7	not verified by this witness.	12:12
8	MS. WEAVER: Who were they verified by?	12:13
9	MS. STEIN: The other individual who	12:13
10	verified the other portion of interrogatories.	12:13
11	BY MS. WEAVER:	12:13
12	Q. So you're not prepared to testify about	12:13
13	the location of user data today; is that correct?	12:13
14	MS. STEIN: That's an unfair	12:13
15	characterization. He is not testifying about the	12:13
16	architecture of his book systems.	12:13
17	MS. WEAVER: Well, we're going to have to	12:13
18	get somebody back for that.	12:13
19	Q. So do you know what's contained in MySQL	12:13
20	database at all other than to say users' activities?	12:13
21	A. Anything else related to the users	12:13
22	activities on Facebook should be in MySQL database.	12:13
23	Certain certain aspects of those activities, for	12:13
24	example, their connection with other people or with	12:13
25	other entities would probably be captured in Tao	12:13
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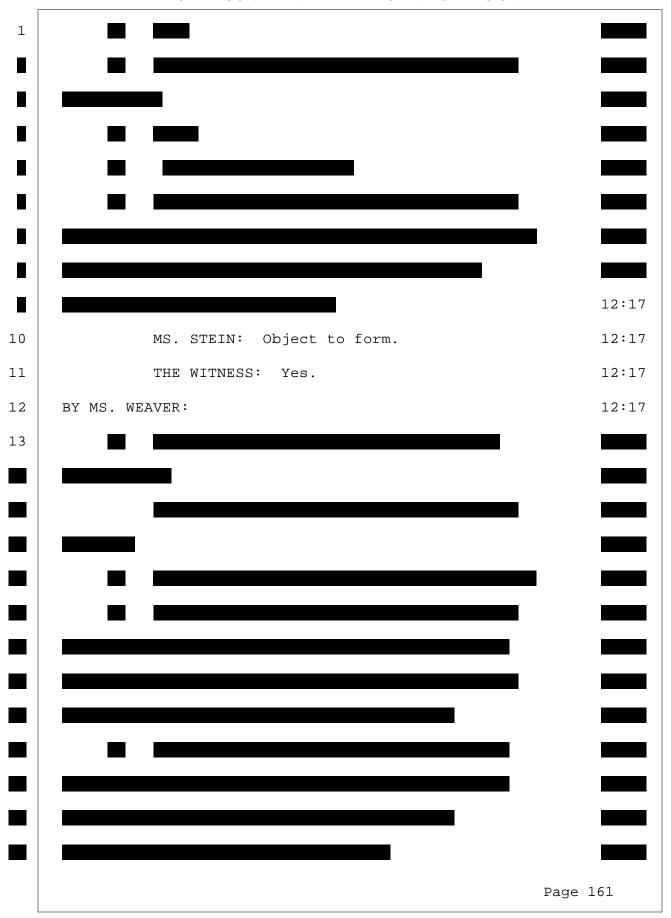
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 160 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	database.	12:13
2	Q. Okay. And what is	12:13
3	A. Their activities on Facebook or	12:13
4	off-platform or API calls will be captured on Hive.	12:14
5	That's at a very high level how our database are	12:14
6	architected.	12:14
7	Q. And what is Hive?	12:14
8	A. It's a database that captures logs.	12:14
9	Q. And what are logs?	12:14
10	A. It's an activity that you have taken on-	12:14
11	or off-platform made by a call that was made from an	12:14
12	app on your behalf. The fact that you may have	12:14
13	liked someone's photo is something that lives in	12:14
14	Hive.	12:14
15		
	Page	159

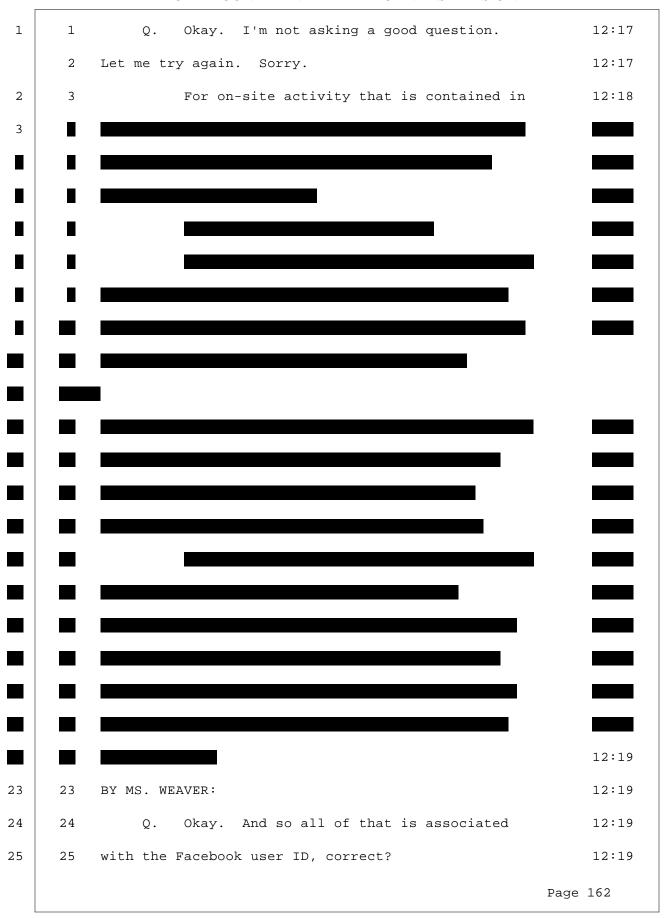
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		12:15
Q.	Going back to Tao, is it Tao or Dow?	12:15
A.	T-A-O.	12:15
Q.	Okay. That stands for the associations	12:15
and opti	cs server; is that right?	12:15
A.	I don't remember what it stands for, but	12:15
it's def	initely connections, database.	12:15
Q.	Okay. When you say it's the connections,	12:15
is it a	relational database?	12:15
A.	Yes.	12:15
Q.	Okay.	12:15
A.	It identifies people's connections with	12:15
friends	and other entities on the platform.	12:16
		12:16
Q.	What is ZippyDB? Do you know?	12:16
Α.	No, I don't really recall what ZippyDB.	12:16
		Page 160
	A. Q. and opti A. it's def Q. is it a A. friends	A. T-A-O.  Q. Okay. That stands for the associations and optics server; is that right?  A. I don't remember what it stands for, but it's definitely connections, database.  Q. Okay. When you say it's the connections, is it a relational database?  A. Yes.  Q. Okay.  A. It identifies people's connections with friends and other entities on the platform.

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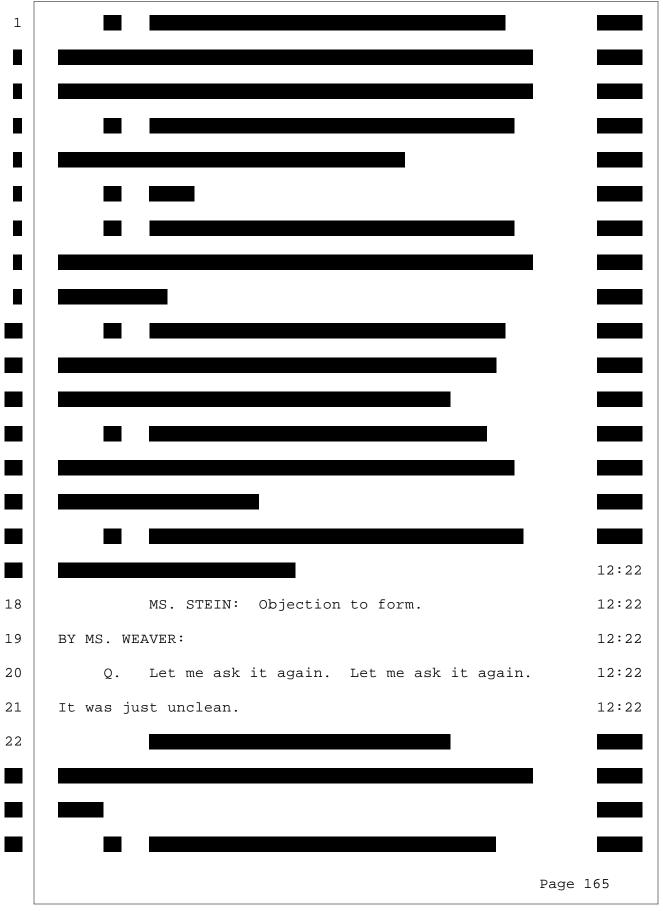
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1	A. Because of activity that happens on the	12:19
2	platform, yes.	12:19
3		
		12:19
8	Q. Like privacy controls should be in the DIY	12:19
9	file?	12:19
10	A. If you change the privacy controls you	12:19
11	mean?	12:19
12	Q. I in general what the settings are,	12:19
13	sure, yeah. Is that in the DIY file?	12:19
14	A. It's a very broad question because depends	12:19
15	whether are you talking about specifically a post	12:19
16	that you made and the privacy controls for that or	12:19
17	privacy controls for a specific attribute on your	12:19
18	user profile?	12:20
19	Q. Either. You can answer both questions.	12:20
20	MS. STEIN: Objection to form.	12:20
21	THE WITNESS: We we will know and the	12:20
22	DIY file should indicate whether your date of birth	12:20
23	is private information, i.e., only available to you	12:20
24	or available to your friends or available to the	12:20
25	public. Because we need to be able to control the	12:20
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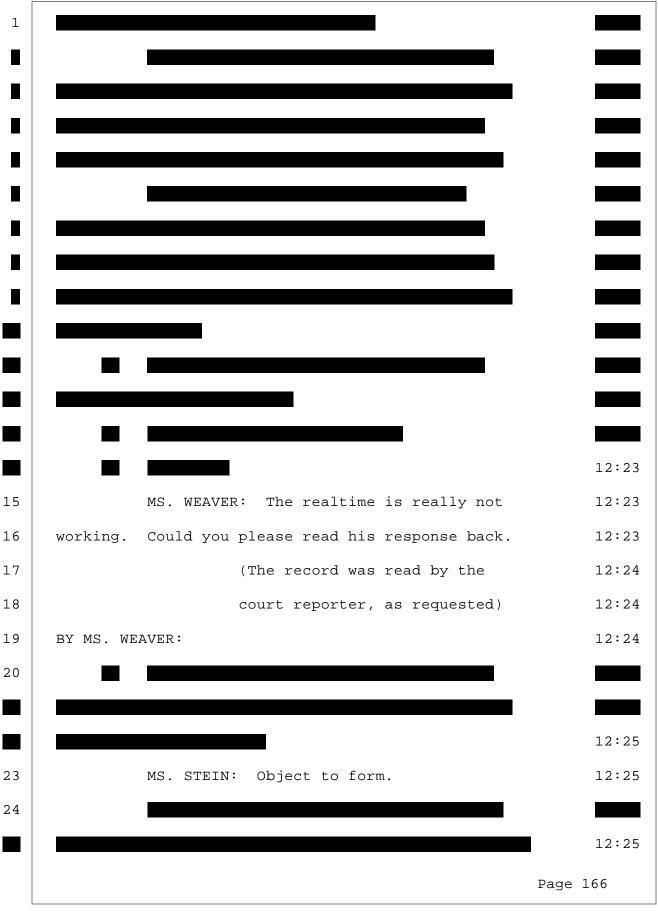
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1	access to that piece of information whenever someone	12:20
2	requests that information.	12:20
3	And similarly	12:20
4	BY MS. WEAVER:	12:20
5	Q. I don't mean to cut you off, but let me	12:20
6	just ask because I don't think we we want to have	12:20
7	as little time together as possible in some sense,	12:20
8	so let me just ask you what I'm trying to get at.	12:20
9		
		10:01
		12:21
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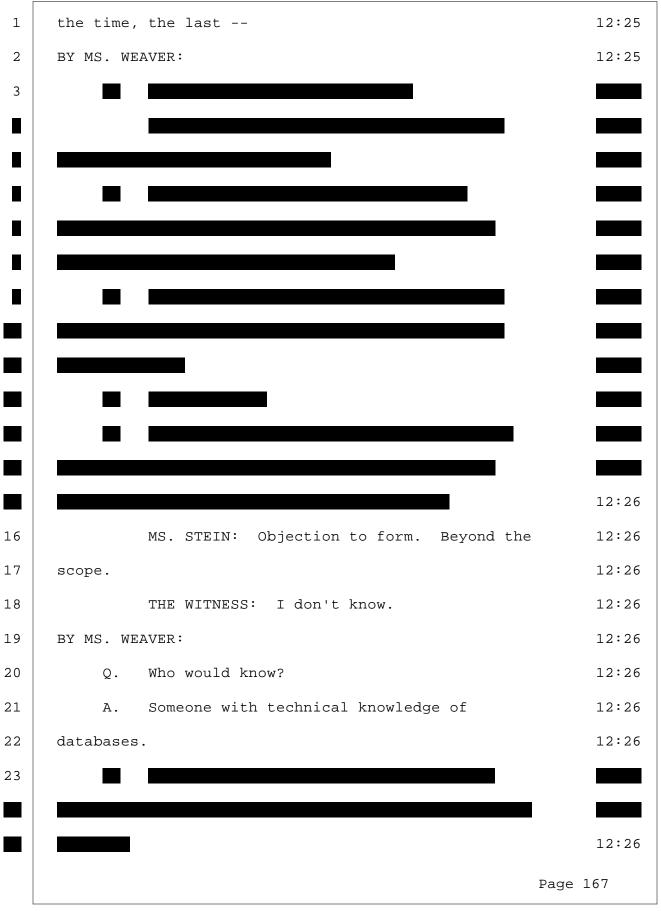
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## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 169 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1			12:26
2	Q.	Do you have a name of somebody in data	12:26
3	science?		12:26
4	Α.	No, I don't.	12:26
5	Q.	Could you find that out?	12:26
6	А.	Are you asking me or the counsel?	12:26
7	Q.	I'm asking Facebook, you.	12:26
8	А.	I could.	12:26
9	Q.	Yeah.	12:26
10	Α.	But I need I need to understand exactly	y 12:26
11		ical, you know, aspects of your question	12:26
12	and make		12:26
13			
	_		
	_		
			12:27
20	Q.	Do you know if that's occurred in this	12:27
21	case?	Jo Jou mon II chae b cocarred in chip	12:27
22	case.	MS. STEIN: I'm just going to object	12:27
23	hecause +	he witness just told you that he didn't	12:27
24		way or the other and is guessing, so	12:27
25	BY MS. WE		12:27
ر ی	DI MD. WE	EART.	
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1	Q. Do you know if that's occurred in this	12:27
2	case?	12:27
3	A. I don't know what information is available	12:27
4	for your plaintiffs.	12:27
5	Q. Yeah. Do you know what's been collected	12:27
6	by Facebook relating to our plaintiffs out of the	12:27
7	Hive database?	12:27
8	A. I'm aware that they the DYI files of	12:27
9	those plaintiffs were made available to to the	12:27
10	plaintiffs. Based on what you've told me, I assume	12:27
11	that's sufficient.	12:27
12		
		12:28
24	MS. STEIN: I think now is a good time for	12:28
25	lunch.	12:28
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1				
2 3 hour? 12:28 3 4 THE REPORTER: Do you want to go off the 12:28 4 5 record first? 12:28 5 6 MS. WEAVER: Yes, let's go off the record. 12:28 6 7 THE VIDEOGRAPHER: We are off the record 12:28 7 12:28 8 at p.m. 8 12:28 9 9 (Whereupon a luncheon recess was had.) 12:28 10 10 11 11 12 12 13 13 13 14 14 14 15 15 16 16 16 17 17 18 18 19 19 20 20 21 21 22 22 23 23 24 24 25 25	1	1	MS. WEAVER: That's fine. We can go to	12:28
3 4 THE REPORTER: Do you want to go off the 12:28 4 5 record first? 12:28 5 6 MS. WEAVER: Yes, let's go off the record. 12:28 6 7 THE VIDEOGRAPHER: We are off the record 12:28 7 12:28 8 at p.m. 8 12:28 9 9 (Whereupon a luncheon recess was had.) 12:28 10 10 11 11 12 12 13 13 13 14 14 15 15 16 16 17 17 18 18 19 19 20 20 21 21 22 22 23 23 24 24 25 25		2	lunch and why don't we do you want a half an	12:28
4 5 record first? 12:28 5 6 MS. WEAVER: Yes, let's go off the record. 12:28 6 7 THE VIDEOGRAPHER: We are off the record 12:28 7 12:28 8 at p.m. 8 12:28 9 9 (Whereupon a luncheon recess was had.) 12:28 10 10 11 11 12 12 13 13 14 14 15 15 16 16 17 17 18 18 19 19 20 20 21 21 22 22 23 23 24 24 25 25	2	3	hour?	12:28
5 6 MS. WEAVER: Yes, let's go off the record. 12:28 6 7 THE VIDEOGRAPHER: We are off the record 12:28 7 12:28 8 at p.m. 8 12:28 9 9 (Whereupon a luncheon recess was had.) 12:28 10 10 11 11 12 12 13 13 14 14 15 15 16 16 17 17 18 18 19 19 20 20 21 21 22 22 23 23 24 24 25 25	3	4	THE REPORTER: Do you want to go off the	12:28
6 7 THE VIDEOGRAPHER: We are off the record 12:28 7 12:28 8 at p.m. 8 12:28 9 9 (Whereupon a luncheon recess was had.) 12:28 10 10 11 11 12 12 13 13 14 14 15 15 16 16 17 17 18 18 19 19 20 20 21 21 22 22 23 23 24 24 25 25	4	5	record first?	12:28
7	5	6	MS. WEAVER: Yes, let's go off the record.	12:28
8 12:28 9 9 (Whereupon a luncheon recess was had.) 12:28 10 10 11 11 12 12 13 13 14 14 15 15 16 16 17 17 18 18 19 19 20 20 21 21 22 22 23 23 24 24 25 25	6	7	THE VIDEOGRAPHER: We are off the record	12:28
9 9 (Whereupon a luncheon recess was had.) 12:28  10 10  11 11  12 12  13 13  14 14  15 15  16 16  17 17  18 18  19 19  20 20  21 21  22 22  23 23  24 24  25 25	7		12:28 8 at p.m.	
10	8	12:2	8	
11	9	9	(Whereupon a luncheon recess was had.)	12:28
12       12         13       13         14       14         15       15         16       16         17       17         18       18         19       19         20       20         21       21         22       22         23       23         24       24         25       25	10	10		
13       13         14       14         15       15         16       16         17       17         18       18         19       19         20       20         21       21         22       22         23       23         24       24         25       25	11	11		
14       14         15       15         16       16         17       17         18       18         19       19         20       20         21       21         22       22         23       23         24       24         25       25	12	12		
15	13	13		
16       16         17       17         18       18         19       19         20       20         21       21         22       22         23       23         24       24         25       25	14	14		
17       17         18       18         19       19         20       20         21       21         22       22         23       23         24       24         25       25	15	15		
18       18         19       19         20       20         21       21         22       22         23       23         24       24         25       25	16	16		
19     19       20     20       21     21       22     22       23     23       24     24       25     25	17	17		
20       20         21       21         22       22         23       23         24       24         25       25	18	18		
21       21         22       22         23       23         24       24         25       25	19	19		
22     22       23     23       24     24       25     25	20	20		
23     23       24     24       25     25	21	21		
24     24       25     25	22	22		
25 25	23	23		
	24	24		
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1	Tuesday, February 23, 2021	01:15
2	1:19 P.M.	01:15
3		01:15
4	THE VIDEOGRAPHER: We are on the record at	01:19
5	1:19 p.m.	01:19
6	EXAMINATION (resumed)	01:19
7	BY MS. WEAVER:	01:19
8	Q. Good afternoon, K.P. Do you understand	01:19
9	that you are still under oath?	01:19
10	A. Yes, I do. Thank you.	01:19
11	Q. Okay. Let's change focus a little bit.	01:19
12	What is News Feed?	01:20
13	A. The easiest way to describe the News Feed	01:20
14	is a collection of stories published by pages you	01:20
15	follow or your friends that you would see when you	01:20
16	go to Facebook or when you open the Android or iOS,	01:20
17	yeah.	01:20
18	Q. And does an algorithm determine the	01:20
19	content that a user receives on News Feed?	01:20
20	A. Yes, it does.	01:20
21	Q. It's an intelligent algorithm, right; so	01:20
22	it's constantly learning?	01:20
23	A. It's an intelligent algorithm because the	01:20
24	purpose of the feed is to be relevant to the user.	01:20
25	Q. Right. But so it's constantly	01:20
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1	learning, right?	01:20
2	A. Yes, it will	01:20
3	Q. Changes	01:20
4	A. It updates itself periodically based on	01:20
5	information around your response to some of the	01:20
6	stories that you see.	01:20
7	Q. Okay. And what are the inputs for the	01:20
8	algorithm so that it can be intelligent and learn?	01:20
9	MS. STEIN: Objection to form.	01:21
10	THE WITNESS: Your interactions with	01:21
11	content that shows up on the News Feed informs how	01:21
12	the algorithm trains itselves itself.	01:21
13	BY MS. WEAVER:	01:21
14	Q. And so when a user clicks on a story or	01:21
15	engages with it, does Facebook record that activity?	01:21
16	A. There is a record of that activity, yes.	01:21
17	Q. Fair enough. Thank you.	01:21
18	So is one objective of News Feed to	01:21
19	increase users interaction with varying courses of	01:21
20	content to learn what they are interested in?	01:21
21	A. The main objective of the News Feed is to	01:21
22	keep you informed about the things that matter to	01:21
23	you.	01:21
24	Q. Right. And so how does News Feed	01:21
25	determine what matters to you?	01:21
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1	A. Based on your interactions with the	01:21
2	comments that show up there, it trains itself.	01:21
3	Q. And is it true that the more the user	01:22
4	engages on the platform, the more accurate News Feed	01:22
5	will be?	01:22
6	A. The level	01:22
7	MS. STEIN: Object to form.	01:22
8	THE WITNESS: It's very subjective.	01:22
9	BY MS. WEAVER:	01:22
10	Q. Okay. But isn't it true that the more	01:22
11	data points the algorithm has about users, the more	01:22
12	it can correctly gauge whether or not it is giving	01:22
13	users the content they want to see?	01:22
14	MS. STEIN: Objection to form.	01:22
15	THE WITNESS: Like I think I said, the	01:22
16	purpose of the News Feed is to connect you with	01:22
17	information that's relevant to you. And so there is	01:22
18	no element of accuracy in that sense. It all goes	01:22
19	back to relevance. And relevance	01:22
20	BY MS. WEAVER:	01:22
21	Q. Okay.	01:22
22	A is very subjective.	01:22
23	Q. And what does relevance mean to you?	01:22
24	A. Relevance is a way of being captured by	01:22
25	the kind of interactions you have with that piece of	01:23
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1	content.	01:23
2	Q. Okay. So when you say so Facebook is	01:23
3	trying to give me a News Feed that I will find	01:23
4	relevant; is that right?	01:23
5	A. Correct.	01:23
6	Q. And how does it find what is relevant to	01:23
7	me?	01:23
8	A. It's calculated in realtime, and based on	01:23
9	the interactions you're going to have with the	01:23
10	content that is displayed to you, we will determine	01:23
11	whether content from the same entity or of the same	01:23
12	kind would be relevant to you in a future instance.	01:23
13	Q. So is it Facebook's view that these data	01:23
14	sets are necessary to determine the relevancy of	01:23
15	these updates to users?	01:23
16	MS. STEIN: Objection to form. Beyond the	01:23
17	scope.	01:23
18	THE WITNESS: Are you talking about	01:23
19	specific data sets?	01:23
20	BY MS. WEAVER:	01:23
21	Q. In general, just in general at a high	01:23
22	level.	01:23
23	MS. STEIN: Objection to form and beyond	01:23
24	the scope.	01:23
25	THE WITNESS: There are certain signals	01:24
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1	that we are going to be using to determine how the	01:24
2	future versions of the New Feeds would be relevant	01:24
3	to you.	01:24
4	BY MS. WEAVER:	01:24
5	Q. Okay. And what signals are those?	01:24
6	A. Your affinity with the people that posting	01:24
7	those stories, so the business entity that is	01:24
8	posting those stories to your previous response to	01:24
9	content of the same type.	01:24
10	Q. And all of this is data that Facebook	01:24
11	collects about users while they're on and off the	01:24
12	platform, correct?	01:24
13	A. We record	01:24
14	MS. STEIN: Objection to form.	01:24
15	THE WITNESS: We record the interactions	01:24
16	you have with that platform to inform the future	01:24
17	(indecipherable)	01:24
18	THE REPORTER: I'm sorry, I did not I'm	01:24
19	sorry, I did not understand.	01:24
20	BY MS. WEAVER:	01:24
21	Q. In order to inform? I did not hear the	01:24
22	last part.	01:24
23	A. A future a future instance of the News	01:24
24	Feed that will remain relevant to you.	01:24
25	Q. Is there a standard set of documents or	01:24
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1	manuals that describes how News Feed operates?	01:24
2	A. There is nothing like that.	01:25
3	Q. Okay. Does Facebook use internal training	01:25
4	manuals when a new hire comes on or do they point	01:25
5	just everybody to the public website?	01:25
6	A. For what purposes?	01:25
7	Q. For let's say you hire an engineer who	01:25
8	is going to work on the algorithm for News Feed.	01:25
9	A. I haven't been through that training so I	01:25
10	don't have firsthand experience.	01:25
11	Q. Okay. When you started at Facebook did	01:25
12	they give you a training manual?	01:25
13	A. What do you mean, like a book printed?	01:25
14	Q. Yeah, or online, some kind of way to	01:25
15	acclimate you to how Facebook operates.	01:25
16	A. Well, they're my obligations to	01:25
17	Facebook are documented in different formats. In	01:25
18	2012 I did not get a paper copy of that, but I was	01:25
19	given links to trainings that I had to undertake to	01:25
20	verify my understanding of the company's policies.	01:25
21	Q. Okay. So we discussed this earlier in the	01:26
22	morning. But apps on Facebook's platform send	01:26
23	information about users of those apps to Facebook,	01:26
24	right?	01:26
25	A. Apps on Facebook platform send information	01:26
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1	about those users back to Facebook, is that the	01:26
2	question?	01:26
3	Q. Yes.	01:26
4	MS. STEIN: Objection to form.	01:26
5	THE WITNESS: They send certain pieces of	01:26
6	information about those users, the users' activities	01:26
7	to those	01:26
8	BY MS. WEAVER:	01:26
9	Q. Right. Is it a true statement that app	01:26
10	developers share data with Facebook through the	01:26
11	Facebook software development kit?	01:26
12	A. Different kinds of data, but yes.	01:27
13	Q. Yes? The answer is "yes," isn't it?	01:27
14	A. Yes.	01:27
15	Q. Okay. So I'm just going to say, apps on	01:27
16	Facebook's platform send information about users of	01:27
17	those apps to Facebook, correct?	01:27
18	MS. STEIN: Objection. The witness	01:27
19	clarified the statement for you.	01:27
20	THE WITNESS: Yeah, an app developer that	01:27
21	uses the SDK will send different pieces of	01:27
22	information related to that user or the activity of	01:27
23	that user to that third-party app.	01:27
24	BY MS. WEAVER:	01:27
25	Q. Okay. Are you familiar with action	01:27
	   Page	177

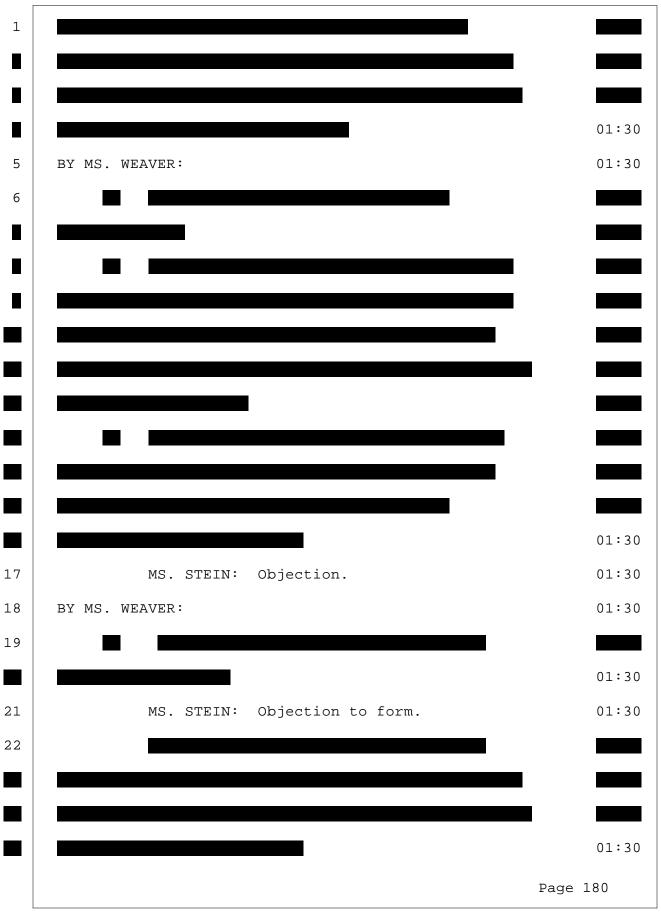
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 179 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	importers?	01:27
2	A. Action importers? Vaguely.	01:27
3	Q. Okay. What's your recollection?	01:27
4	MS. STEIN: Objection to form.	01:27
5	THE WITNESS: I I don't want to answer	01:27
6	because I don't know in what context.	01:27
7	MS. WEAVER: Are you instructing him not	01:27
8	to answer?	01:27
9	MS. STEIN: Did you hear me instruct him	01:28
10	not to answer, Lesley?	01:28
11	MS. WEAVER: Okay.	01:28
12	MS. STEIN: The witness is testifying in	01:28
13	response to your question. Why don't you listen to	01:28
14	him.	01:28
15	MS. WEAVER: I'd rather listen to him for	01:28
16	sure.	01:28
17	Q. What are what is action importers,	01:28
18	K.P., please?	01:28
19	A. I need you to provide me a little bit more	01:28
20	context.	01:28
21	Q. What is your understanding of what action	01:28
22	importers is?	01:28
23	A. It was a feature, by my recollection, of	01:28
24	the platform that allowed the third party to do an	01:28
25	import of all the actions taken by a user on a	01:28
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1	third-party app.	01:28
2	Q. When you say	01:28
3	MS. WEAVER: Could you repeat the last	01:28
4	part? Could you read back his response? Realtime	01:28
5	is still not working.	01:28
6	(The record was read by the	01:28
7	court reporter, as requested)	01:28
8	BY MS. WEAVER:	01:28
9	Q. Okay. And when did action importers	01:29
10	function? Was it during the 2012 to 2017 time	01:29
11	frame?	01:29
12	A. I don't know.	01:29
13	Q. Who would know?	01:29
14	A. I don't know who would know.	01:29
15	Q. Can you, as testifying on behalf of	01:29
16	Facebook today, say that you do not know who was	01:29
17	involved with action importers?	01:29
18	A. No, because my understanding of that	01:29
19	feature my recollection, again, being before	01:29
20	my you know, my date of arrival at Facebook.	01:29
21		
		01:29
24	MS. STEIN: Objection to form.	01:29
25		01:29
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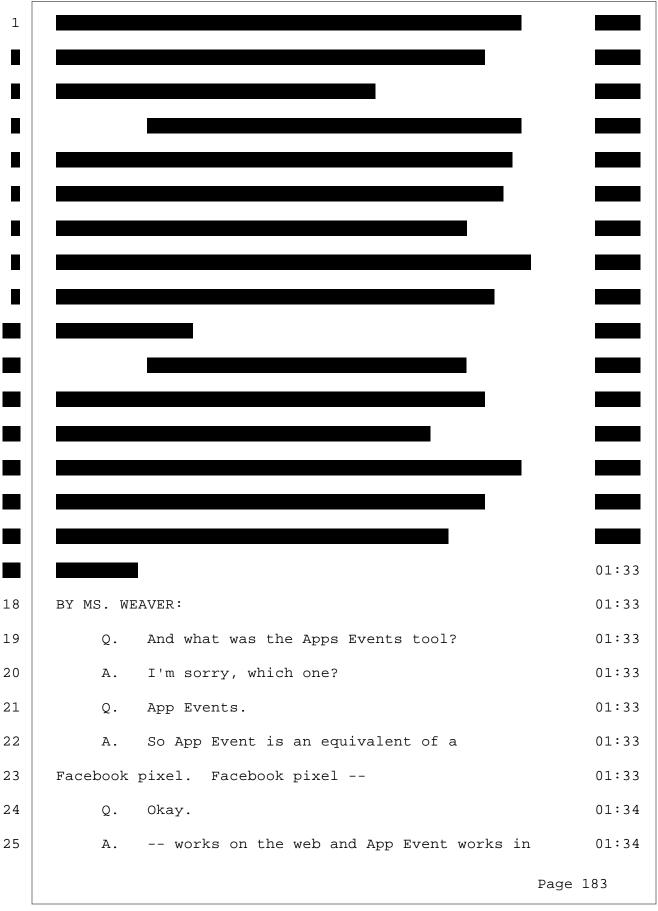
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1	BY MS. WEAVER:	01:30
2		01:30
3	MS. STEIN: Lesley Lesley, let the	01:31
4	witness finish his answer.	01:31
5	MS. WEAVER: He's not answering the right	01:31
6	question.	01:31
7	MS. STEIN: He's answering just don't	01:31
8	cut off the witness when he's speaking.	01:31
9	BY MS. WEAVER:	01:31
10		
		01:31
17	MS. STEIN: Objection to form.	01:31
18		
		01:31
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1		
		01:31
3 BY	MS. WEAVER:	01:31
4	Q. Did Facebook provide user data to the	01:31
5 app	ps?	01:31
6	A. To the extent that user log in with	01:32
7 Fac	cebook, yes.	01:32
8		
		01:32
14	MS. STEIN: Objection to form.	01:32
15		
		01:32
18 BY	MS. WEAVER:	01:32
19		
		01:32
22	MS. STEIN: Objection to form.	01:32
23		
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1	native iOS or Android app.	01:34
2	Q. And are you aware, then, of a custom	01:34
3	analytics well, are you aware of something called	01:34
4	Custom Events?	01:34
5	A. Yes, I'm aware.	01:34
6	Q. What is that?	01:34
7	A. And so Facebook provided a predetermined	01:34
8	list of events that any developer could use as an	01:34
9	off-the-shelf solution, events like an app in store,	01:34
10	events like app registration, things like that,	01:34
11	where predetermined list. I think there were 18	01:34
12	of them.	01:34
13	A custom app event is an event that an app	01:34
14	developer can create to track specific activity to	01:34
15	that app that is for that app and that app only. So	01:34
16	a custom event for a Nike app would be a run, which	01:34
17	is an event specific to this app. Or for Spotify it	01:34
18	would be a track to listen to which is specific to	01:34
19	Spotify.	01:34
20	Q. And then does Facebook use the information	01:35
21	it collects to provide analytics like aggregate its	01:35
22	statistics and insights for its advertisers and	01:35
23	third-party partners?	01:35
24	A. To the extent that sorry.	01:35
25	THE REPORTER: Was there an objection?	01:35
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1	MS. STEIN: I said "Objection to form."	01:35
2	THE REPORTER: Thank you.	01:35
3	THE WITNESS: The purposes of us providing	01:35
4	this capability was to provide aggregated data back	01:35
5	to the third-party developers about usage patterns	01:35
6	on their apps.	01:35
7	BY MS. WEAVER:	01:35
8	Q. And strike that.	01:35
9	And did Facebook often obtain sensitive	01:35
10	data from app developers?	01:35
11	MS. STEIN: Objection to form.	01:35
12	THE WITNESS: It depends. What do you	01:35
13	mean by "sensitive data"?	01:35
14	BY MS. WEAVER:	01:35
15	Q. Did Facebook receive information about	01:35
16	diseases, medical conditions and injuries, or sexual	01:35
17	and reproductive health from apps?	01:36
18	A. By design, the app events, they do not	01:36
19	allow, you know, a third-party developer to be	01:36
20	passing that information.	01:36
21	Q. Okay. Well, I don't know what you mean by	01:36
22	"by design," but the question is pretty simple.	01:36
23	Is it your testimony today that Facebook	01:36
24	did not obtain data relating to diseases, medical	01:36
25	conditions and injuries, or sexual and reproductive	01:36
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1	health from apps?	01:36
2	A. Well, it's a very broad question, so I'm	01:36
3	trying to respond to the best of my ability.	01:36
4	So by design, access to that information	01:36
5	was not available. However, if the app developer	01:36
6	decided to tell us about an event that was a custom	01:36
7	event that may have disclosed some of that	01:36
8	information, we would have discussed it.	01:36
9	Q. As you sit here today, do you know whether	01:36
10	or not Facebook received data that related to	01:36
11	diseases, medical conditions and injuries, or sexual	01:37
12	and reproductive health?	01:37
13	A. There was an incident we had a year or two	01:37
14	ago with period tracker apps that were sending app	01:37
15	events, custom app events, around the cycle of a	01:37
16	certain user. If that's what you mean by this	01:37
17	category, then the answer is yes.	01:37
18	Q. Okay. And did those categories also	01:37
19	include mental health and psychological states,	01:37
20	types of medical devices and health trackers,	01:37
21	medical treatments, body specifications, bodily	01:37
22	activities and biological cycles, among other	01:37
23	things?	01:37
24	A. I don't know, but I don't think it's	01:37
25	possible to do that.	01:37
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1	Q. Were you part of the team that	01:37
2	investigated this?	01:37
3	A. No.	01:37
4	Q. Who was?	01:37
5	A. I don't know.	01:37
6	Q. Okay. When Facebook did receive the	01:37
7	sensitive information such as diseases, medical	01:37
8	conditions, injuries, sexual and reproductive	01:37
9	health, did that where did that data go?	01:37
10	MS. STEIN: Objection to form.	01:37
11	THE WITNESS: You're making an assumption	01:38
12	that we did receive. I only referred to a specific	01:38
13	incident around period trackers.	01:38
14	BY MS. WEAVER:	01:38
15	Q. Okay. So in that instance, where did	01:38
16	A. I can only respond to that.	01:38
17	Q. Okay. In that instance, where did the	01:38
18	data go?	01:38
19	A. The data were aggregated and anonymized.	01:38
20	Q. Okay. But Facebook still retains it then;	01:38
21	is that right?	01:38
22	A. No, since we have deleted the data. They	01:38
23	shouldn't have arrived	01:38
24	Q. How could you delete it if it was	01:38
25	anonymized?	01:38
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1	A. What do you mean?	01:38
2	Q. You just said "We deleted the data," but	01:38
3	you described that data as anonymized. So how did	01:38
4	you delete it if it was anonymized? How did you	01:38
5	identify which data to delete?	01:38
6	A. This is a technical question. But you can	01:38
7	imagine an app event that basically suggests period	01:38
8	start. It's somewhere locked, so I can not me	01:38
9	personally, but we can identify probably app events	01:38
10		01:38
	that are associated with a specific action that	
11	shouldn't have been recorded that we will then have	01:38
12	to delete. And we would work with the developer to	01:39
13	remove this kind of custom events from being sent.	01:39
14		
21	Q. When was that data deleted?	01:39
22	A. I don't have an exact recollection of	01:39
23	that.	01:39
24	Q. Was it in 2018?	01:39
25	A. It may be 2018, 2019, around that time	01:39
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1	frame.		01:39
2	Q.	Who made the decision to delete it?	01:39
3	Α.	I don't know. I wasn't involved in this	01:39
4	investiga	tion.	01:39
5	Q.	Once that data is deleted can it be	01:39
6	recovered	?	01:39
7		MS. STEIN: Objection. Outside the scope	01:39
8	of this w	itness's knowledge.	01:39
9		THE WITNESS: I don't know.	01:39
10	BY MS. WE	AVER:	01:39
11	Q.	But you knew that it was deleted; is that	01:40
12	right?		01:40
13	Α.	I know that's the data has been	01:40
14	deleted,	yes.	01:40
15	Q.	How did you come to know that?	01:40
16	Α.	Because I was part of the communications	01:40
17	to the de	veloper audience about the specific	01:40
18	instance.		01:40
19	Q.	And which developer are you thinking of?	01:40
20	Α.	There were a number of period tracker apps	01:40
21	that have	to comply.	01:40
22	Q.	Can you identify some of them?	01:40
23	Α.	Not at the top of my mind.	01:40
24	Q.	Flow Health?	01:40
25	Α.	I don't recall that.	01:40
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1	Q. How would you refresh your recollection?	01:40
2	A. I would have to look at the entire	01:40
3	universe of apps that have been in scope that have	01:40
4	been sending this kind of events.	01:40
5	Q. Why did Facebook delete the data?	01:40
6	A. Because that's not the kind of data	01:40
7	that's we want to have access to.	01:40
8	Q. Were any regulators involved?	01:40
9	A. For that, I don't know.	01:41
10	Q. Okay. When Facebook receives information	01:41
11	about an individual from an app, does Facebook	01:41
12	associate that information with other information	01:41
13	Facebook has collected about that individual through	01:41
14	the Facebook user ID?	01:41
15	MS. STEIN: Objection to form.	01:41
16	THE WITNESS: Again, depends what kind of	01:41
17	data we're talking about here.	01:41
18	BY MS. WEAVER:	01:41
19	Q. Let's say sensitive health data like	01:41
20	diseases, medical, injuries, sexual or reproductive	01:41
21	health.	01:41
22	A. If the data has been communicated to us	01:41
23	through app events, no.	01:41
24	Q. Okay. When is the answer yes? When does	01:41
25	it connect it to other users?	01:41
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1	A. If the user basically establishes that	01:41
2	they are suffering from a certain disease and they	01:41
3	decide to post on Facebook and tell their friends	01:41
4	about it, then yes.	01:41
5	Q. So even if the post is to three of my	01:41
6	friends, Facebook will collect that data; is that	01:41
7	right?	01:41
8	MS. STEIN: Objection to form.	01:42
9	THE WITNESS: Well, you're posting it to	01:42
10	Facebook, so, yes, Facebook will have an	01:42
11	understanding of that.	01:42
12	BY MS. WEAVER:	01:42
13	Q. Even if it's to a restricted audience?	01:42
14	A. That audience will have access to that	01:42
15	data, but someone has to host the data in order to	01:42
16	be able to sell it to that audience, and we provide	01:42
17	the service.	01:42
18	Q. And then does Facebook I'm sorry.	01:42
19	A. Sorry. We provide the service, so yes.	01:42
20	Q. So then does Facebook then use that	01:42
21	information to create custom target audiences for	01:42
22	advertisers?	01:42
23	A. Are you talking broadly or about the	01:42
24	specific things?	01:42
25	Q. Both.	01:42
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1	MS. STEIN: Objection to form.	01:42
2	THE WITNESS: Like it's a very broad	01:42
3	question. So I would say that if we know that you	01:42
4	use if you play Candy Crush Saga 10 times a day,	01:42
5	that may inform our targeting for U.S. potential	01:42
6	audience for games of this same genre.	01:42
7	If we have expressed or if we establish	01:43
8	your affinity to Beyonce, again like I described	01:43
9	before, we would use that information to target you	01:43
10	with like R&B music.	01:43
11	BY MS. WEAVER:	01:43
12	Q. So let's talk about custom audiences for a	01:43
13	moment, though, please.	01:43
14	So if I posted to three friends that I had	01:43
15	a medical condition and Facebook collects that	01:43
16	information, does Facebook use that information to	01:43
17	create a custom audience for advertisers if they are	01:43
18	seeking something about a medical condition?	01:43
19	A. No, that's not how it works.	01:43
20	Q. Why doesn't it work that way? Why does it	01:43
21	only work for Beyonce but not a medical condition?	01:43
22	MS. STEIN: Objection to form.	01:43
23	THE WITNESS: Because a custom audience is	01:43
24	an advertisement product that reengages with	01:43
25	customers of an existing business.	01:43
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1	BY MS. WEAVER:	01:43
2	Q. Right. I understand what it is.	01:43
3	So I'm a business and I come to Facebook	01:43
4	and I say "I want I want to target people with	01:43
5	this medical condition." Does Facebook provide	01:44
6	that that custom audience?	01:44
7	A. No, that's not how it works. If you	01:44
8	really want to use custom audience, you need to	01:44
9	provide with hashed email addresses or information	01:44
10	about the users that you have diagnosed to have	01:44
11	suffered from that disease.	01:44
12	Q. Could you repeat the last part of the	01:44
13	sentence? I just didn't understand.	01:44
14	A. So let's say you use a medical app for the	01:44
15	sake of the argument.	01:44
16	Q. Okay.	01:44
17	A. And you have a thousand users that went	01:44
18	through a questionnaire and they have been diagnosed	01:44
19	with, say, alcoholism. That's probably a bad	01:44
20	example because I don't think but, anyhow, let's	01:44
21	use that.	01:44
22	Then to the extent that you can identify	01:44
23	those users because they have created an account	01:44
24	with that medical app using their email address or	01:44
25	the phone number, you can upload the email addresses	01:44
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1	of those thousand users hashed to us and then we are	01:44
2	going to create the custom audience ad campaign	01:45
3	trying to find those 1,000 users on Facebook.	01:45
4	To the extent that they exist, they will	01:45
5	see an ad. But, again, the ad will compete with	01:45
6	other ads, like we discussed before. But it will be	01:45
7	a database provided by the third party hashed, so	01:45
8	anonymized with specific people that have been	01:45
9	diagnosed to suffer from a certain disease.	01:45
10	Q. Okay. Let's talk for a moment about APIs.	01:45
11	We touched upon them this morning. Do you recall	01:45
12	that?	01:45
13	A. Yes.	01:45
14	Q. You're aware at some point that well,	01:45
15	there was more than one version of Graph API over	01:45
16	time; is that right?	01:45
17	A. Yes, Version 1 of the API, it's being	01:45
18	running from 2008 or 2009 until 2000 May 1st,	01:45
19	2015.	01:46
20	Q. It was accessible until April 2015 or	01:46
21	May 2015?	01:46
22	A. I think it's May 1st, but it may be	01:46
23	MS. WEAVER: You should amend your rog	01:46
24	responses, Deb.	01:46
25	Q. And by "accessible," that means third	01:46
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1	parties could access data through it; is that	01:46
2	correct?	01:46
3	A. Yes.	01:46
4	Q. Okay. And then Graph API Version 2 came	01:46
5	into being at some point; is that right?	01:46
6	A. Graph API V2 was launched on April 30,	01:46
7	2014.	01:46
8	Q. Okay. And it was accessible until	01:46
9	May 2020; is that right?	01:46
10	A. The Version 2? I'm sorry.	01:46
11	Q. Version 2, yeah.	01:46
12	A. Are you talking about Version 2?	01:46
13	Q. Yes, Version 2 was accessible until	01:46
14	May 2020; is that correct?	01:46
15	A. I need to check because I don't know when	01:46
16	the last version the last Version 2 of the API	01:47
17	was final, approved. Because we have Version 3	01:47
18	right now.	01:47
19	Q. Okay. Right. And Version 3 came into	01:47
20	effect May 2018; is that right?	01:47
21	A. That seems about right.	01:47
22	Q. Okay. And that was accessible it will	01:47
23	be accessible through August 2021; is that correct?	01:47
24	A. So let me take a step back to explain a	01:47
25	little bit how the replacement process works because	01:47
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1	I think that may be helpful.	01:47
2	An API is rolled out at a specific point	01:47
3	in time and the version of this API is successful	01:47
4	for the next 2-plus years. Each time we release a	01:47
5	new version of the API, that means that the previous	01:47
6	would be accessible for the period of time between	01:47
7	that plus-2 years. So the lifetime of the version	01:47
8	of the API would be 2-plus years, more or less two	01:47
9	to three months on top of the 2-year mark.	01:47
10	But we have versions that start from 2.0	01:47
11	to 2.1 all the way to 2.10 or 11, if I'm not	01:48
12	mistaken. And then we switch to Version 3. And	01:48
13	Version 3.0 will be available for 2-plus years,	01:48
14	Version 3.1 would be available for 2-plus years, so	01:48
15	on and so on.	01:48
16	Q. Understood. You're familiar with the	01:48
17	phrase "Public APIs"?	01:48
18	A. Yes.	01:48
19	Q. What is the difference between a public	01:48
20	API and a private API?	01:48
21	A. A public API is an API that is available	01:48
22	in general availability, meaning that the	01:48
23	third-party developer that wants to access this API	01:48
24	has to go through the process, we call it app	01:48
25	review, where the developer will specifically ask	01:48
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1	for permission to access that API, and once	01:48
2	approved, will be able to access that API.	01:48
3	Q. When was the process of app review first	01:48
4	implemented?	01:48
5	A. The introduction of Version 2 of the API	01:48
6	coincided with the introduction of the app review	01:48
7	process.	01:49
8	Q. So April of 2015?	01:49
9	A. April 30, 2014.	01:49
10	Q. 2014?	01:49
11	A. Yes.	01:49
12		
		01:49
17	Q. Okay. And we discussed this before. But	01:49
18	what is a capability?	01:49
19	A. A capability is a way to provide access	01:49
20	control to a private API.	01:49
21	Q. And what is a permission?	01:49
22	A. A permission is a way to gain user's	01:49
23	consent for access to specific data points.	01:49
24	Q. Okay. And what was at a very high	01:49
25	level, what was the difference between Graph API	01:49
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1	Versions 1.0 and 2.0?	01:50
2	A. At the very high level?	01:50
3	Q. Yes.	01:50
4	A. Access to friends' information was	01:50
5	deprecated with introduction of Version 2 of the	01:50
6	API.	01:50
7	Q. And what do you mean by "friends'	01:50
8	information was deprecated"?	01:50
9	A. And so in Version 1 of the API a user	01:50
10	could log in with a third-party app and allow access	01:50
11	to this app to their friends' photos or their	01:50
12	friends' birthdays, things like that.	01:50
13	With Version 2 of the API, this feature	01:50
14	was completely deprecated. So a user could only	01:50
15	allow a third-party app to have access to their own	01:50
16	birthday information and their own photos.	01:50
17		
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O1:51  Q. What was Post-Search API? 01:51  A. An API that allowed a third party to 01:51  search for public posts on Facebook. 01:51  Q. Did Post-Search API enable analytics via 01:51  listening tracking mentions of keywords and hashtags 01:51  over time? 01:51  MS. STEIN: Objection to form. 01:51  THE WITNESS: I want to understand a 01:52  17 little bit better. Do you have a specific example 01:52  in mind? 01:52  BY MS. WEAVER: 01:52  Q. I don't. I was just asking the question. 01:52  MS. STEIN: Objection to form. 01:52  understanding what sort of analytics you are looking 01:52  understanding what sort of analytics you are looking 01:52  BY MS. WEAVER: 01:52  BY MS. WEAVER: 01:52	1		
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9         Q. What was Post-Search API?         01:51           10         A. An API that allowed a third party to         01:51           11         search for public posts on Facebook.         01:51           12         Q. Did Post-Search API enable analytics via         01:51           13         listening tracking mentions of keywords and hashtags         01:51           14         over time?         01:51           15         MS. STEIN: Objection to form.         01:52           16         THE WITNESS: I want to understand a         01:52           17         little bit better. Do you have a specific example         01:52           18         in mind?         01:52           19         BY MS. WEAVER:         01:52           20         I don't. I was just asking the question.         01:52           21         MS. STEIN: Objection to form.         01:52           22         THE WITNESS: I'm having hard time         01:52           23         understanding what sort of analytics you are looking         01:52           24         for.         01:52           25         BY MS. WEAVER:         01:52			
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14       over time?       01:51         15       MS. STEIN: Objection to form.       01:51         16       THE WITNESS: I want to understand a       01:52         17       little bit better. Do you have a specific example       01:52         18       in mind?       01:52         19       BY MS. WEAVER:       01:52         20       Q. I don't. I was just asking the question.       01:52         21       MS. STEIN: Objection to form.       01:52         22       THE WITNESS: I'm having hard time       01:52         23       understanding what sort of analytics you are looking       01:52         24       for.       01:52         25       BY MS. WEAVER:       01:52	12	Q. Did Post-Search API enable analytics via	01:51
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18       in mind?       01:52         19       BY MS. WEAVER:       01:52         20       Q. I don't. I was just asking the question.       01:52         21       MS. STEIN: Objection to form.       01:52         22       THE WITNESS: I'm having hard time       01:52         23       understanding what sort of analytics you are looking       01:52         24       for.       01:52         25       BY MS. WEAVER:       01:52	16	THE WITNESS: I want to understand a	01:52
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understanding what sort of analytics you are looking 01:52  for. 01:52  BY MS. WEAVER: 01:52	21	MS. STEIN: Objection to form.	01:52
24 for. 01:52 25 BY MS. WEAVER: 01:52	22	THE WITNESS: I'm having hard time	01:52
25 BY MS. WEAVER: 01:52	23	understanding what sort of analytics you are looking	01:52
	24	for.	01:52
Page 199	25	BY MS. WEAVER:	01:52
		Page	e 199

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1	Q.	Do you know what sentiment analysis is?	01:52
2	Α.	Yes.	01:52
3	Q.	What is it?	01:52
4	Α.	Normally brands do certain analysis to	01:52
5	understand	d how their brands are perceived in social	01:52
6	media.		01:52
7	Q.	And so did Post-Search API enable	01:52
8	sentiment	analysis?	01:52
9	Α.	I don't think that would be valuable, so	01:52
10	my answer	is no.	01:52
11	Q.	You're answering it didn't do that because	01:52
12	you don't	think it would be valuable?	01:52
13		MS. STEIN: Objection. Argumentative.	01:52
14	BY MS. WE	AVER:	01:52
15	Q.	I don't understand the answer.	01:52
16	Α.	Post-Search on account of public posts.	01:52
17	And those	are not necessarily posts that a brand	01:52
18	would use	to inform or to understand the sentiment	01:52
19	of people	against that brand.	01:53
20	Q.	Okay. So your testimony is that	01:53
21	Post-Sear	ch API did not allow sentiment analysis or	01:53
22	enable ser	ntiment analysis?	01:53
23	Α.	I'm saying that the public posts may not	01:53
24	be releva	nt for a brand to establish sentiment	01:53
25	analysis.		01:53
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1	Q. Did Facebook deprecate Post-Search API?	01:53
2	A. Yes.	01:53
3	MS. STEIN: Objection. Outside the scope.	01:53
4	THE WITNESS: Yes, we did.	01:53
5	BY MS. WEAVER:	01:53
6		
15	Q. So during the transition period from Graph	01:53
16	API Version 1.0 to 2.0, did Facebook inform certain	01:53
17	third parties that they would no longer access	01:54
18	friends' data?	01:54
19	MS. STEIN: Objection to form. And	01:54
20	objection to scope.	01:54
21	This witness is not our corporate designee	01:54
22	on communications with third parties. He's the	01:54
23	designee on the topic ordered by Judge Corley. So	01:54
24	he's not authorized to testify about communications	01:54
25	that you are asking him about.	01:54
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1	MS. WEAVER: I don't think you understand.	01:54
2	This is what data was shared with third parties.	01:54
3	Are you declining to allow the witness to testify	01:54
4	what was shared with third parties?	01:54
5	MS. STEIN: You're asking him about	01:54
6	communications with developers. Do you want	01:54
7	MS. WEAVER: No, I'm not. I'm asking	01:54
8	about what was I'm leading into what data was	01:54
9	shared with whitelisted third parties and others.	01:54
10	Are you going to impede continue to	01:54
11	impede this deposition?	01:54
12	MS. STEIN: Okay. First of all, I'm not	01:54
13	impeding. Second of all, that's not what you asked.	01:54
14	So if you'd like to ask what got shared with	01:54
15	whitelisted apps	01:54
16	MS. WEAVER: Would you please read back my	01:54
17	question.	01:54
18	(The record was read by the	01:55
19	court reporter, as requested)	01:55
20	BY MS. WEAVER:	01:55
21	Q. Please answer.	01:55
22	A. So on April 30, 2014, we hold our annual	01:55
23	conference called F8, and that's when we announced	01:55
24	introduction of Version 2 of the API. So the	01:55
25	communications were broad about the deprecation of	01:55
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1	the Version 1 of the API and the deprecation of	01:55
2	access to any of the friends' data.	01:55
3	Q. And so some third parties were allowed to	01:55
4	continue to access friends' data while others were	01:55
5	not; is that correct?	01:55
6	A. After the deprecation of the Version 1 of	01:55
7	the API, the only integrations that maintain their	01:55
8	access to friends' data were device integrations.	01:55
9	Q. And what is the phrase "whitelisting"?	01:55
10	A. I would decline the opportunity to lecture	01:56
11	as on the use of white or blacklists right now, but	01:56
12	I would use the term "allow lists" for the purposes	01:56
13	of being politically correct from now on.	01:56
14	You can use whatever term you would use,	01:56
15	but I will use the term "allow lists" to refer to	01:56
16	anything that you may use the term "whitelist."	01:56
17	Q. Okay. During the time period 2012 to	01:56
18	2017, did Facebook use the term "whitelist"?	01:56
19	A. Yes.	01:56
20	Q. Did you?	01:56
21	A. Yes.	01:56
22	Q. Okay. And you said that Facebook only	01:56
23	whitelisted integration partners a moment ago,	01:56
24	didn't you?	01:56
25	A. I didn't use that term in relation to	01:56
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1	device integrations.	01:56
2	Q. Okay.	01:56
3	A. We can read back my statement, but I'm	01:56
4	pretty certain that I said the only integrations	01:56
5	that could access to friends' information were	01:56
6	device integrations.	01:56
7	Q. Okay. Was Oracle a device integrator?	01:56
8	A. I don't think so.	01:57
9	Q. Was Salesforce?	01:57
10	A. I don't think so.	01:57
11	Q. Did Facebook whitelist Oracle and	01:57
12	Salesforce?	01:57
13	A. If they have ever whitelisted Salesforce	01:57
14	and Oracle, is that the question?	01:57
15	Q. Did they at the time period that we're	01:57
16	talking about whitelist Oracle and Salesforce?	01:57
17	MS. STEIN: Lesley, this is out of scope.	01:57
18	This deposition	01:57
19	MS. WEAVER: It's not. I'm trying to	01:57
20	understand what companies had access to user data.	01:57
21	MS. STEIN: No, friends of friends' data.	01:57
22	MS. WEAVER: No.	01:57
23	MS. STEIN: It's Salesforce stop. This	01:57
24	deposition	01:57
25	MS. WEAVER: You can instruct him you	01:57
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1	can instruct him not to answer or object to form, or	01:57
2	we can call Judge Corley.	01:57
3	MS. STEIN: We can call Judge Corley if	01:57
4	you want because you're asking merits questions.	01:57
5	This deposition is supposed to be about what data	01:57
6	Facebook collected and which of that data was	01:57
7	accessible or shareable, and so far	01:57
8	MS. WEAVER: Exactly. Maybe you don't	01:58
9	understand, Deb, but this goes to the heart of	01:58
10	whether Salesforce and Oracle were receiving	01:58
11	friends' data and when. That is what I am trying to	01:58
12	figure out.	01:58
13	MS. STEIN: No, that's not what that is	01:58
14	not what this deposition is about. This witness is	01:58
15	not testifying about specific apps.	01:58
16	He's talking about what types and	01:58
17	categories of data got collected and what could have	01:58
18	been could have been accessed or shared, right?	01:58
19	This is supposed to be high level, not about, you	01:58
20	know, who did what when.	01:58
21	MS. WEAVER: Are you done?	01:58
22	MS. STEIN: Yes.	01:58
23	BY MS. WEAVER:	01:58
24	Q. Is Salesforce a device integrator?	01:58
25	A. It's not.	01:58
	Page	e 205

## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 207 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Q. Thank you.	01:58
2	So your testimony that only device	01:58
3	integrators were whitelisted would not include	01:58
4	Salesforce or Oracle, would it?	01:58
5	MS. STEIN: Objection to form.	01:58
6	THE WITNESS: I think your use of the term	01:58
7	"whitelist" in relation to user data is problematic	01:58
8	here. I'm not trying to criticize you. I'm trying	01:58
9	to understand exactly what you mean. Because	01:59
10	whitelist is an access control or an allow list to	01:59
11	an API. That API doesn't necessarily need to allow	01:59
12	access to user data. It may be pages data. Your	01:59
13	assumption is that	01:59
14	THE REPORTER: It may be what data?	01:59
15	THE WITNESS: Pages data.	01:59
16	MS. WEAVER: Okay. So let's move on. The	01:59
17	documents will speak for themselves. We can move	01:59
18	on.	01:59
19	THE WITNESS: No, I want to continue my	01:59
20	response if that's okay, because I want to make sure	01:59
21	that it's covered. I have the	01:59
22	BY MS. WEAVER:	01:59
23	Q. I don't think what you're saying is	01:59
24	accurate, and I'd like to just move on, if you don't	01:59
25	mind.	01:59
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1	A. I have reasons to believe that my response	01:59
2	is 100 percent accurate.	01:59
3	Q. Okay. I understand.	01:59
4	Were there third parties who were using	01:59
5	friends' data for research also whitelisted?	01:59
6	MS. STEIN: If the witness has something	01:59
7	that he needs to clarify now, we should do that now.	01:59
8	I'm sure Judge Corley would want his testimony to be	01:59
9	clarified in something that he's comfortable with.	01:59
10	BY MS. WEAVER:	01:59
11	Q. What would you like to add?	01:59
12	MS. STEIN: If there's a clarification you	02:00
13	need to make, let's make sure we have a clear	02:00
14	record.	02:00
15	THE WITNESS: Yes. So I would like to	02:00
16	suggest that there are three three things that	02:00
17	are is worth clarifying here.	02:00
18	We have the data. We have APIs that allow	02:00
19	access to the data. And then we have access	02:00
20	controls to that data. Right? What you're talking	02:00
21	about here is the allow list also known as	02:00
22	whitelist.	02:00
23	That is very broad because it	02:00
24	BY MS. WEAVER:	02:00
25	Q. I was talking about friends' permissions,	02:00
	Page	e 207

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1	right?	02:00
2	A. Yes, but to the extent that the allow list	02:00
3	you're talking about are for APIs that are not	02:00
4	exposing this kind of data, then I would argue that	02:00
5	the question about Salesforce or Oracle is	02:00
6	irrelevant.	02:00
7	Q. Okay. You can argue that.	02:00
8	Back to my question. Were there other	02:00
9	third parties who were using friends' data for	02:00
10	research, were they also whitelisted?	02:00
11	MS. STEIN: Objection to form.	02:00
12	THE WITNESS: I have no recollection of	02:01
13	any other device integrations being access or	02:01
14	having access to friends' information beyond May 1,	02:01
15	2015.	02:01
16	BY MS. WEAVER:	02:01
17	Q. Right. But between the time when they	02:01
18	announced the transition and before 2015, were there	02:01
19	researchers who were whitelisted and given access to	02:01
20	friends' data?	02:01
21	A. They didn't need to be whitelisted because	02:01
22	that was also publically available through Version 1	02:01
23	of the API.	02:01
24	Q. Did that include Cambridge Analytica?	02:01
25	A. Cambridge Analytica was never a developer	02:01
	Page	208

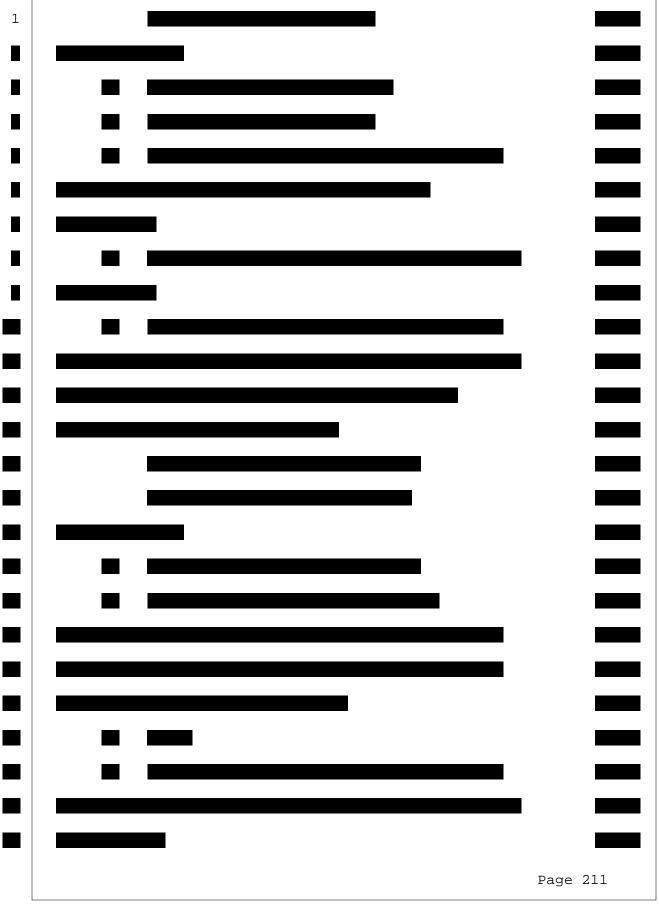
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 210 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	on the platform.	02:01
2	Q. Okay. But I was just asking about	02:01
3	researchers. Do you recall that?	02:01
4	A. If	02:01
5	Q. Let me ask the question again. So were	02:01
6	there certain third parties who were given friends'	02:01
7	data for research who were also whitelisted?	02:01
8	MS. STEIN: Objection to form.	02:01
9	THE WITNESS: Access to public APIs	02:01
10	doesn't come through a whitelist. The access	02:01
11	control that we use for access to public APIs is a	02:01
12	process called app review.	02:02
13	Now, back in 2014, before even the app	02:02
14	review was introduced, any third party could access	02:02
15	anything from the that was made available through	02:02
16	Version 1 of the API with the appropriate user's	02:02
17	consent.	02:02
18	There were a number of researchers, and I	02:02
19	think I can double-guess if the name of the	02:02
20	specific researcher that you have in mind that's	02:02
21	built an application on our platform on the Version	02:02
22	1 of the API, they requested and gained permission	02:02
23	from users to access their data and their friends'	02:02
24	data, and that's the end of it.	02:02
25		
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1	BY MS. WEAVER:	02:02
2	Q. Okay. Are you familiar with Crimson	02:02
3	Hexagon?	02:02
4	A. I have an understanding of the company but	02:02
5	nothing more than that.	02:02
6	Q. Do you know who does have information	02:02
7	about what Crimson Hexagon accessed?	02:02
8	A. No.	02:02
9	MS. STEIN: Objection to form.	02:02
10	BY MS. WEAVER:	02:02
11		
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1		
		02:04
7	Q. Okay. What is Groups API?	02:04
8	A. It's an API that allows third parties to	02:04
9	help group administrators manage the groups from	02:04
10	posting contents to moderating or allowing members	02:04
11	to join the group and so on.	02:05
12	Q. When was it launched?	02:05
13	A. I don't remember the date it was launched.	02:05
14	Q. Was it between 2012 to 2017?	02:05
15	A. Most likely, yes.	02:05
16	Q. And then it was does Groups API still	02:05
17	exist?	02:05
18	A. I think that the Groups API was fully	02:05
19	deprecated in May 2018.	02:05
20	Q. And you were part of that decision, right?	02:05
21	A. Yes.	02:05
22	Q. And why was it deprecated?	02:05
23	A. So I can answer from my perspective why	02:05
24	it's since been deprecated.	02:05
25	MS. STEIN: If you don't know from the	02:05
	Pa	age 212

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1	company's perspective, then I'm going to direct the	02:05
		02.03
2	witness not to answer.	02:05
3	MS. WEAVER: I'm sorry, you're going to	02:05
4	have to be deposed again.	02:05
5	Q. Do you have an understanding on behalf	02:05
6	company as to why Groups API was deprecated?	02:05
7	A. There are certain groups that are not	02:06
8	public that want to make sure that third parties	02:06
9	couldn't access its members.	02:06
10	THE REPORTER: I'm sorry, "Make sure	02:06
11	that"	02:06
12	THE WITNESS: third parties couldn't	02:06
13	access its members.	02:06
14	BY MS. WEAVER:	02:06
15	Q. Okay. What is Live Video API?	02:06
16	A. It's an API that allows a third party to	02:06
17	broadcast live video on Facebook.	02:06
18	Q. I'm sorry, I didn't hear that either.	02:06
19	A. Sorry. It's an API I have changed my	02:06
20	headset.	02:06
21	Q. I know, I know. It's me. I'm kind of	02:06
22	deaf.	02:06
23	A. So it's an API that allows a third party	02:06
24	to broadcast live video on Facebook.	02:06
25	Q. Okay. And when did it first come into	02:06
		Page 213

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1	being?	02:06
2	A. 2015, 2016, maybe.	02:06
3	Q. And what is an endpoint?	02:06
4	A. An endpoint in reference to an API?	02:06
5	Q. Uh-huh.	02:07
6	A. It's how should I explain it?	02:07
7	Q. I can try, but don't make fun of me.	02:07
8	A. Please.	02:07
9	Q. Is an endpoint an object that is accessed	02:07
10	through an API?	02:07
11	A. I I don't know that the endpoint refers	02:07
12	to the the object. It refers to, I think, the	02:07
13	structure of the API. But it may be used in both	02:07
14	ways.	02:07
15	Q. Okay. And then what is a data field with	02:07
16	regard to API?	02:07
17	A. Okay. So let me try to explain maybe in a	02:07
18	different way.	02:07
19	So there are objects and fields.	02:07
20	Q. Uh-huh.	02:07
21	A. So an object can be, let's say, the Crate	02:07
22	& Barrel Facebook page. A field can be the picture	02:07
23	that is being used on that page.	02:07
24	So when you make an API call against that	02:07
25	object where you specify the object ID, you can add	02:07
	Page	214

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1	perimeters in the API request about what is it the	02:08
2	API needs to respond to. And you can respond that	02:08
3	in the field section. You can specify that you want	02:08
4	the name of the page potentially, the profile	02:08
5	picture of the page, or you can specify if you want	02:08
6	posts made against that page.	02:08
7	Q. Thank you. That's very helpful.	02:08
8	So is an object an endpoint in that	02:08
9	description? Are those the same?	02:08
10	A. An endpoint from the API perspective, you	02:08
11	know, the API that requests access to the page,	02:08
12	there's just an API that requests access to, I don't	02:08
13	know, a friends connection. That would be a	02:08
14	different endpoint.	02:08
15	Q. I see. Okay. So are you aware of an	02:08
16	endpoint Get Event ID Live Videos?	02:08
17	A. No.	02:08
18	Q. Okay. You prepared Facebook's	02:08
19	interrogatory responses relating to capabilities and	02:09
20	permissions, right?	02:09
21	MS. STEIN: Objection. Form.	02:09
22	BY MS. WEAVER:	02:09
23	Q. Was that you or was that someone else?	02:09
24	A. I'm supported the counsels in, you know,	02:09
25	like this response, but I don't recall exactly	02:09
	Page	215

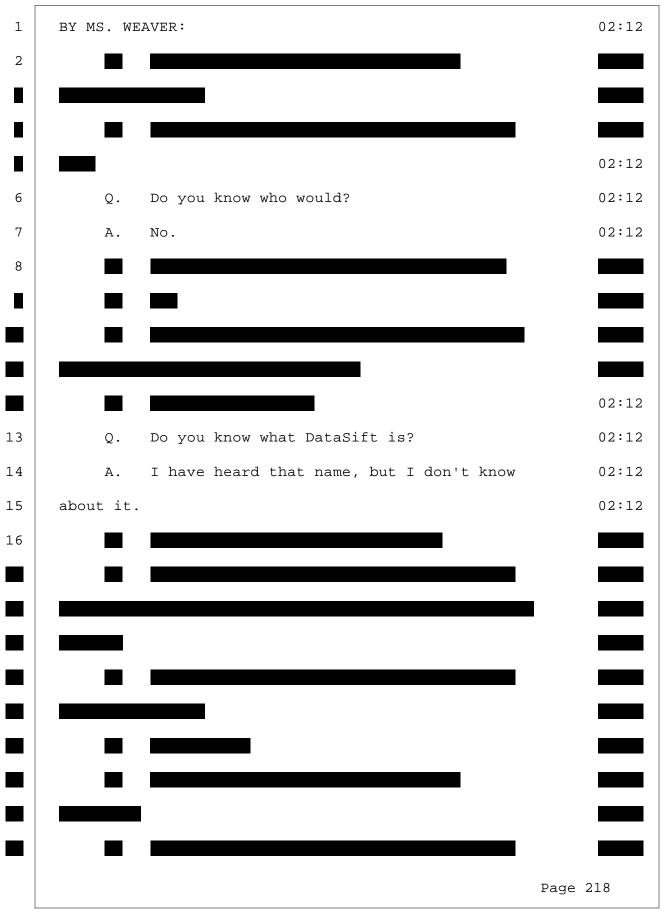
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1	what's that.	02:09
2	Q. I know. I know. And it's cute and you	02:09
3	worked very hard and we're grateful.	02:09
4	MS. STEIN: I'll add I believe that was	02:09
5	the other individual who verified part of it.	02:09
6	MS. WEAVER: Okay. So we're going to have	02:09
7	talk to him. So I'll try	02:09
8	Q. So do you know let me just try this	02:09
9	then. For the call Get Event ID Live Video, do you	02:09
10	know what it was seeking and what it obtained?	02:09
11	A. I think it's associated with the live	02:09
12	event, most likely, the live video that is being	02:09
13	broadcast. But I don't understand exactly the event	02:09
14	in connection with the live video.	02:09
15	Q. Okay. Do you know the difference between	02:10
16	"get" and "post"?	02:10
17	A. Yes.	02:10
18	Q. What's the difference?	02:10
19	A. The one is a read and the other is a	02:10
20	write.	02:10
21	Q. Okay. And so do you know what Get User ID	02:10
22	Live Videos is?	02:10
23	A. No, I don't I don't know the exact	02:10
24	endpoints.	02:10
25	Q. Okay. Do you know what Post User ID Live	02:10
	Page	216

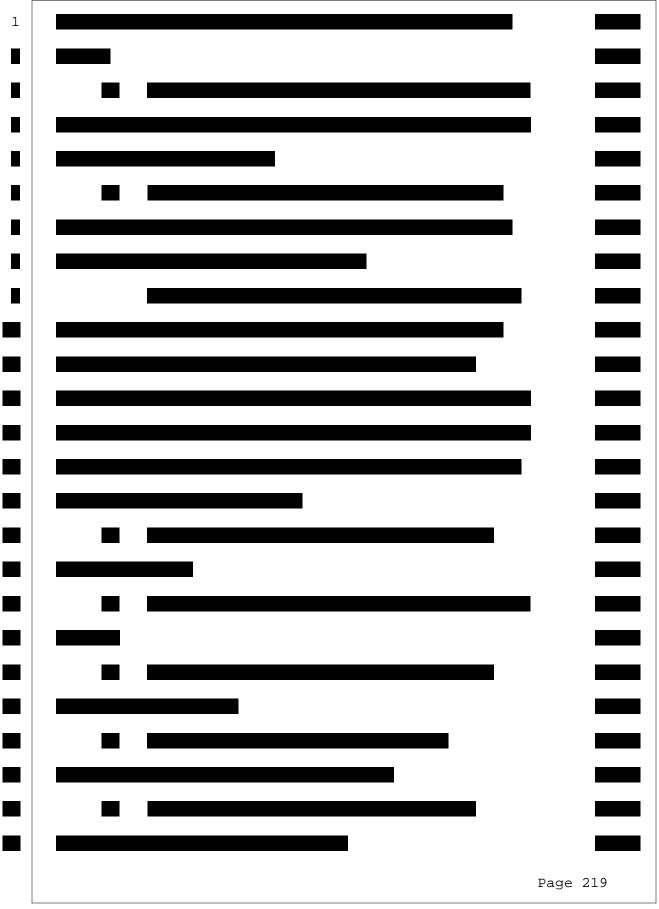
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 218 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Videos is?	02:10
2	A. I don't, no.	02:10
3	Q. Okay. Does Facebook know which third	02:10
4	parties had access to Live Video API?	02:10
5	A. Historically, yes.	02:10
6	Q. Okay. What's Pages API?	02:10
7	A. I think I used that example earlier, so it	02:10
8	may be repetitive. It's an API that allows and pays	02:11
9	administrator to manage the page with which may	02:11
10	includes manage the pages, which may include	02:11
11	posting content on the page, updating the profile	02:11
12	picture on the page, responding to comments made by	02:11
13	users on the page, and so on.	02:11
14		
		02:12
25		
	Page	217

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1		
		02:15
14	Q. Okay. Is there so you said this	02:15
15	already, but just for foundation, what were private	02:15
16	APIs?	02:15
17	A. Private APIs are APIs that are not in	02:15
18	general availability and whose access control is	02:15
19	maintained by partnerships.	02:15
20	Q. By I'm sorry maintained by what?	02:15
21	A. Partnerships. So someone in partnerships	02:15
22	in the	02:15
23	Q. Somebody in partnerships, okay.	02:15
24	A would have to approve the access to	02:15
25	that given API.	02:15
		Page 220
	Varitant Lagal Calutions	

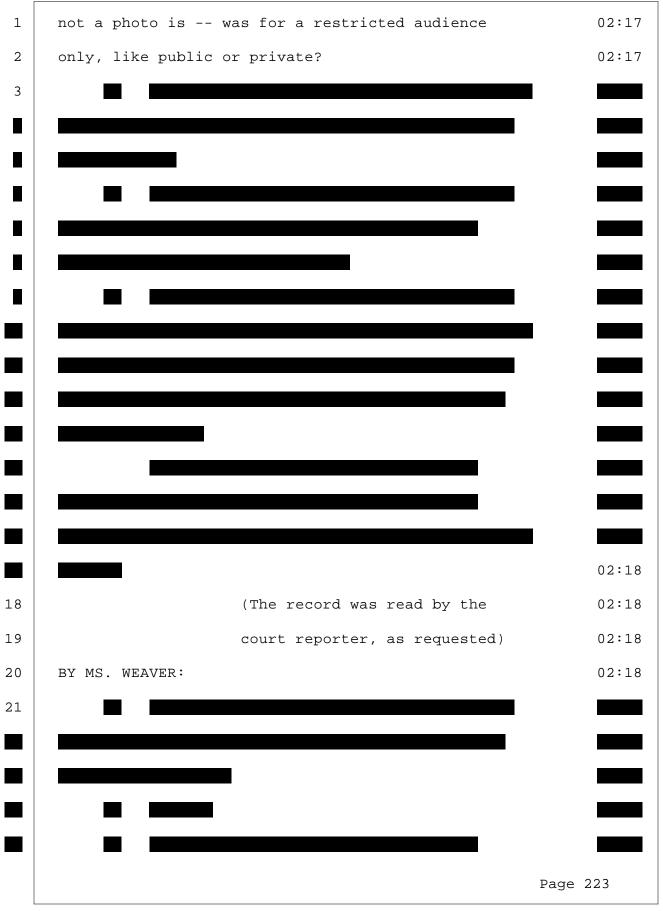
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 222 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	Q. Okay. And when was the first private API	02:15
2	launched?	02:15
3	A. I I honestly don't know.	02:15
4	Q. Was it like 2012 or 2014 or	02:16
5	A. I I believe that private APIs have	02:16
6	always been there since the invention of Facebook.	02:16
7		
	Pa:	ge 221

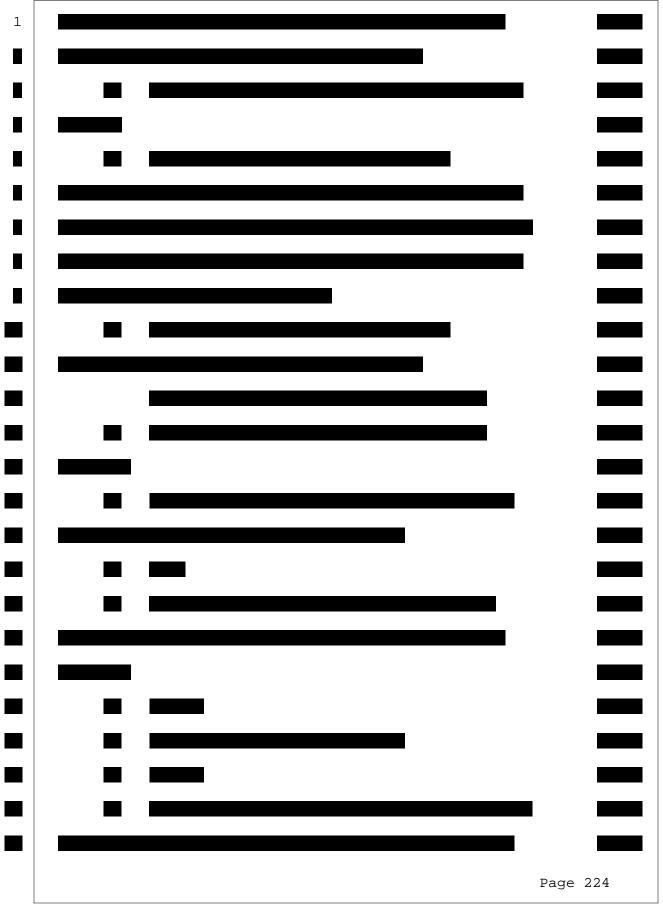
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10	Q.	Okay. Do you know if there's a private	02:17
11	API assoc	iated with it?	02:17
12	Α.	I don't.	02:17
13	Q.	So when an API is providing, in response	02:17
14	to a call	, an object like a photo, does that photo	02:17
15	also come	with metadata?	02:17
16	Α.	Yes, it does.	02:17
17	Q.	Okay. And what's an example of the kinds	02:17
18	of metada	ta that's attached?	02:17
19	Α.	The time-stamp of the photo, when it was,	02:17
20	you know,	taken, when it was uploaded.	02:17
21	Q.	And	02:17
22	Α.	The location of the photo, if it was	02:17
23	started in	n the first place by the user, things like	02:17
24	that.		02:17
25	Q.	Is there a metadata field for whether or	02:17
			Page 222

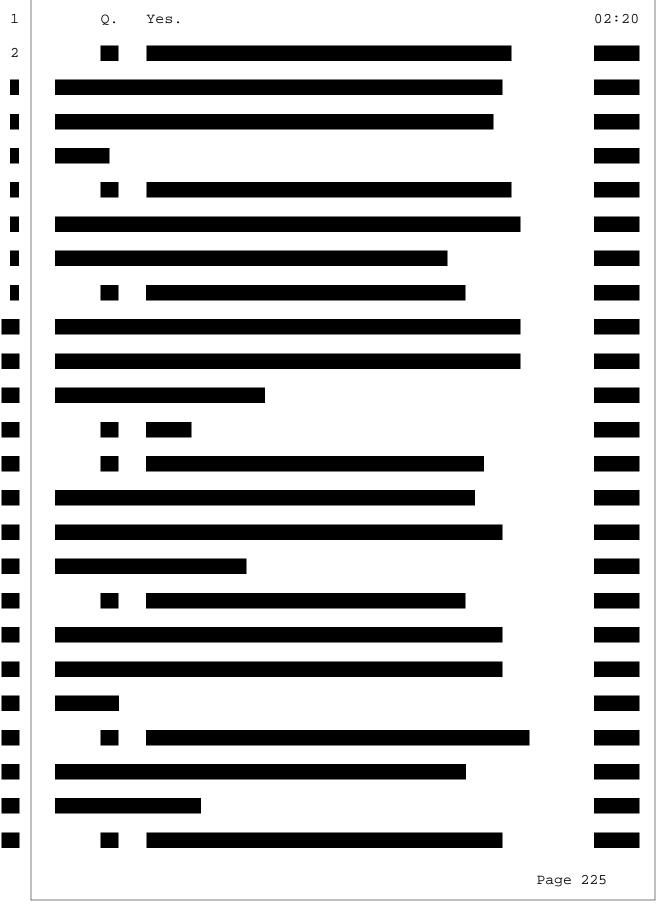
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1		
		02:22
16	Q. And when you say "signature," what do you	02:22
17	mean?	02:22
18	A. I mean that loosely, like it comes with	02:22
19	some information that identifies the app	02:22
20	Q. Okay.	02:22
21	A that makes that API request.	02:22
22	Q. What were extended APIs?	02:22
23	A. "Extended APIs" is a term we use to	02:22
24	describe private APIs.	02:22
25	Q. Okay. Makes sense. And then you're	02:22
		Page 226

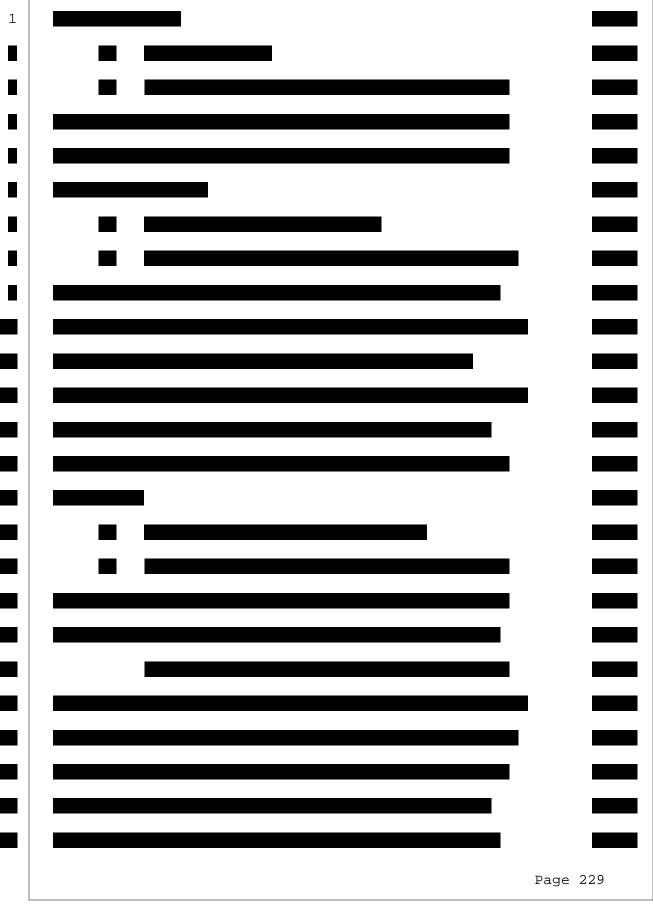
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1	familiar with the phrase "PMD"?	02:23
2	A. Yes.	02:23
3	Q. And what is that?	02:23
4	A. I think it stands for preferred marketing	02:23
5	development.	02:23
6	Q. And give me an example of a preferred	02:23
7	marketing developer.	02:23
8	A. I think Salesforce may be one of them.	02:23
9	Q. So is that a kind of partner?	02:23
10	A. Yes, it would be partners mostly having	02:23
11	access to marketing APIs. That's why it's called	02:23
12	preferred marketing developers, because of their	02:23
13	access to the marketing APIs.	02:23
14	Q. What's a marketing API?	02:23
15	A. APIs that allow a third party to run at	02:23
16	(indecipherable).	02:23
17	Q. And how is that different than custom	02:23
18	audience?	02:23
19	A. Custom audience is a feature that is	02:23
20	accessible through the market behavior.	02:23
21	Q. Okay. What other features are available	02:23
22	on marketing APIs other than custom audience?	02:23
23	A. So this is not necessarily my expertise,	02:23
24	so I may be missing certain things. But the	02:23
25	marketing API allows you to schedule a marketing	02:24
	P	age 227

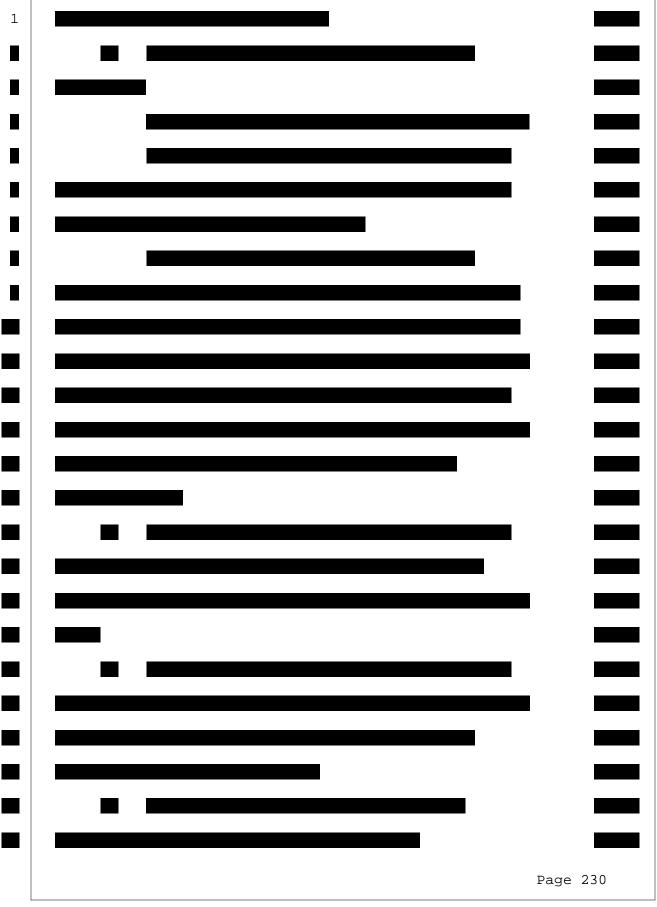
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1	campaign on Facebook the way you would otherwise do	02:24
2	it if you were going to facebook.com and doing it on	02:24
3	the platform.	02:24
4	MS. STEIN: Hey, Lesley, when you get to a	02:24
5	good break point, can we take a short break?	02:24
6	MS. WEAVER: I think it's time to take a	02:24
7	break now, if that's what's popular and democratic.	02:24
8	We can reconvene in ten minutes or so.	02:24
9	THE VIDEOGRAPHER: We are off the record	02:24
10	at 2:24 p.m.	02:24
11	(Recess.)	02:24
12	(Off record: 2:24 p.m.)	02:24
13	(On record: 2:37 p.m.)	02:24
14	THE VIDEOGRAPHER: We are on the record at	02:37
15	2:37 p.m.	02:37
16	BY MS. WEAVER:	02:37
17	Q. You understand you're still under oath?	02:37
18	A. Yes, I do.	02:38
19	Q. Okay. Thank you.	02:38
20	Who how were decisions made about what	02:38
21	third parties had access to data through private	02:38
22	APIs?	02:38
23	MS. STEIN: That's outside the scope of	02:38
24	about how decisions were made, but if you want to	02:38
25	ask, you know, who had access, that's fine.	02:38
	Page	228

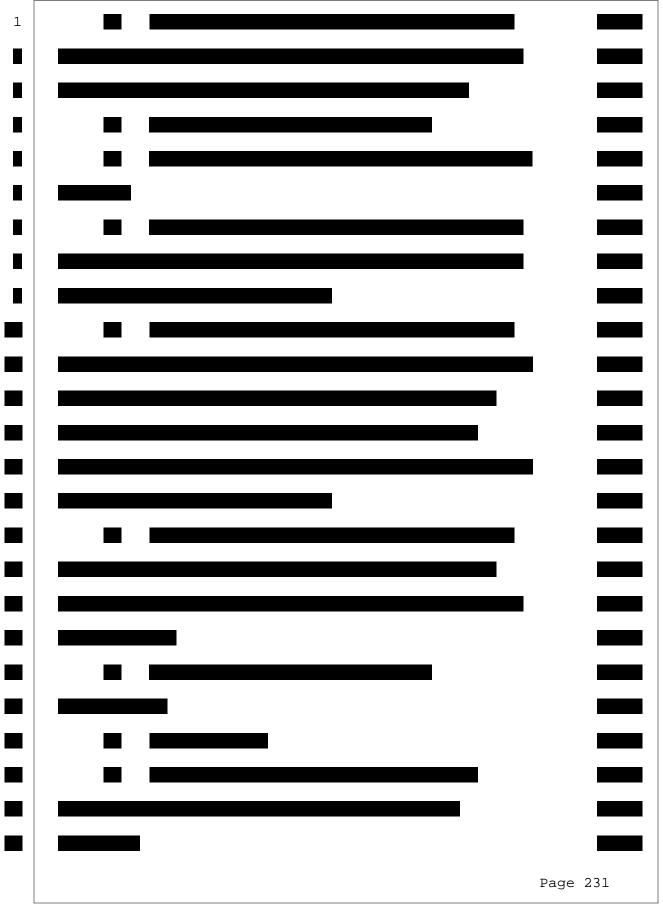
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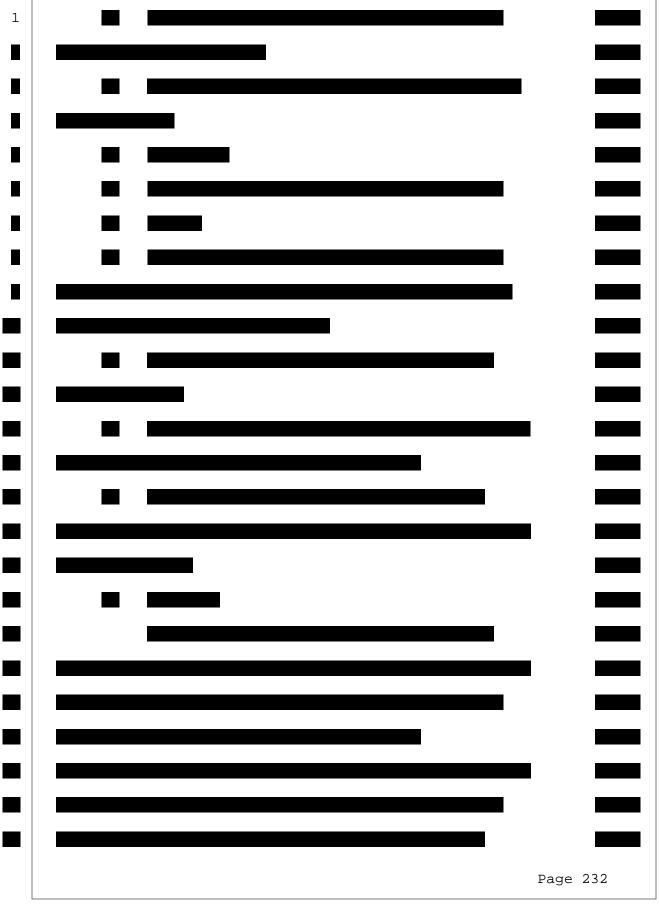
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 231 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



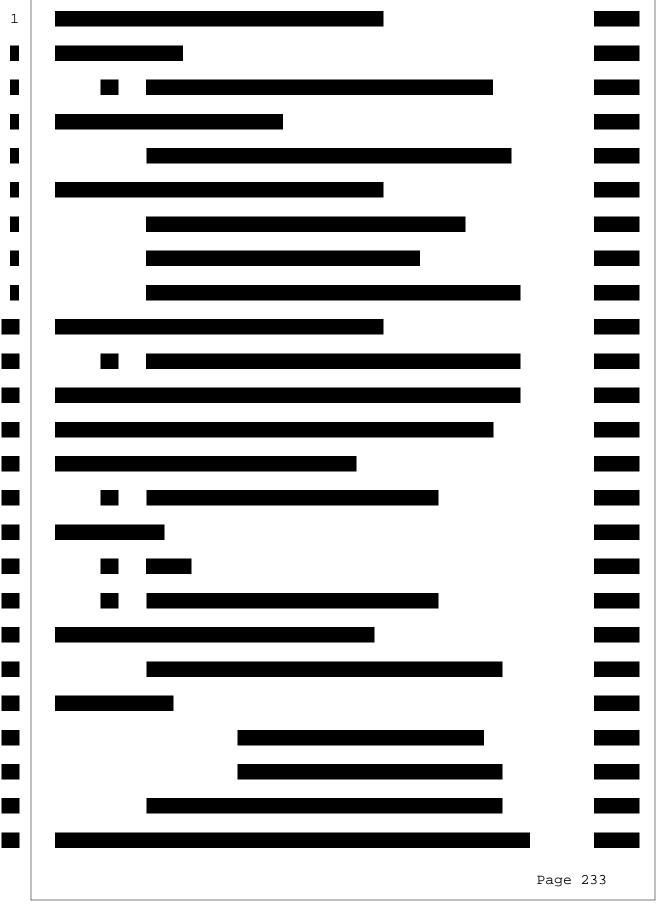
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### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 233 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



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1		
		02:45
15	Q. Okay. And we discussed briefly before	02:45
16	that friends permissions were deprecated. Do you	02:45
17	recall that?	02:45
18	A. Yes.	02:45
19	Q. Roughly how many capabilities were related	02:45
20	to friends permissions that were deprecated?	02:45
21	A. Okay. This is the question that I need	02:45
22	clarification. What was deprecated was the access	02:45
23	to friends permission sorry friends data	02:45
24	through the API. As a consequence of the API being	02:45
25	deprecated, friends-related permissions were	02:45
	Pa	age 234

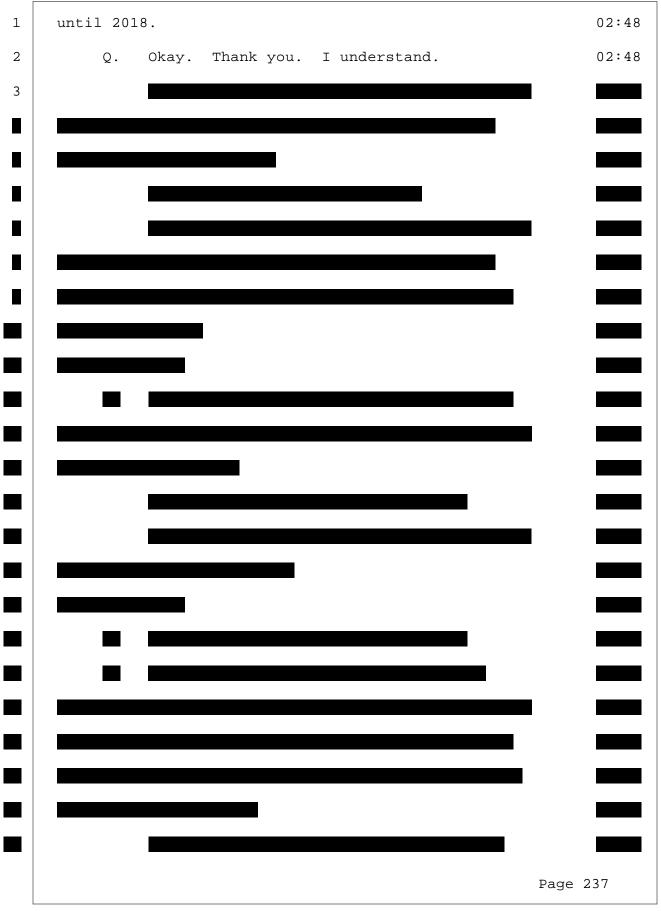
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 236 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	deprecated as well, meaning that there was no point	02:45
2	in us allowing a user to go through a consent flow	02:45
3	for pieces of information that were no longer	02:45
4	available, right?	02:46
5	Capabilities that gave access to the same	02:46
6	data through private APIs were not deprecated until	02:46
7	later on in 2018 because it was the same	02:46
8	capabilities that enabled device integrations to	02:46
9	have access to that data for the purposes of	02:46
10	replicating core Facebook functionality.	02:46
11	THE REPORTER: I'm sorry. Core Facebook?	02:46
12	THE WITNESS: Functionality.	02:46
13	THE REPORTER: Thank you.	02:46
14	BY MS. WEAVER:	02:46
15	Q. So is it true that certain friends	02:46
16	capabilities like friends about me, friends actions,	02:46
17	friends check-ins, friends online presence, friends	02:46
18	photo video tags were deprecated when friends	02:46
19	permissions were deprecated?	02:46
20	A. So I think what you're referring to is	02:46
21	capabilities. And I think I answered that question,	02:46
22	that those capabilities had to be there because they	02:46
23	gated access to the corresponding APIs that powered	02:47
24	device integrations. And that doesn't happen until	02:47
25	late later on in 2018.	02:47
	P	age 235

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1	Q. Okay. So those capabilities were not	02:47
2	deprecated, the ones I just listed?	02:47
3	A. I'm not aware of the specifics, but they	02:47
4	seem to be capabilities related to device	02:47
5	integrations. And, as such, they they they	02:47
6	wouldn't be deprecated before 2018.	02:47
7	Q. Who would know about what was deprecated	02:47
8	with regard to friends permissions?	02:47
9	A. With regards to friends permissions, I	02:47
10	think I	02:47
11	Q. The issue that we're discussing right now,	02:47
12	you're saying	02:47
13	A. I'm	02:47
14	Q. I'm sorry, just allow me to allow me to	02:47
15	ask the question.	02:47
16	The very issue we're discussing right now,	02:47
17	you just said you don't know specifically. Who	02:47
18	would?	02:47
19	A. I think you're using different terms in	02:47
20	places that are very confusing. Like I said,	02:47
21	friends permissions were deprecated by May 1, 2015.	02:47
22	APIs that were attached to those permissions have	02:48
23	deprecated down at the same time. Capabilities	02:48
24	which are are access controls to private APIs	02:48
25	that expose similar information were not deprecated	02:48
	Page	236

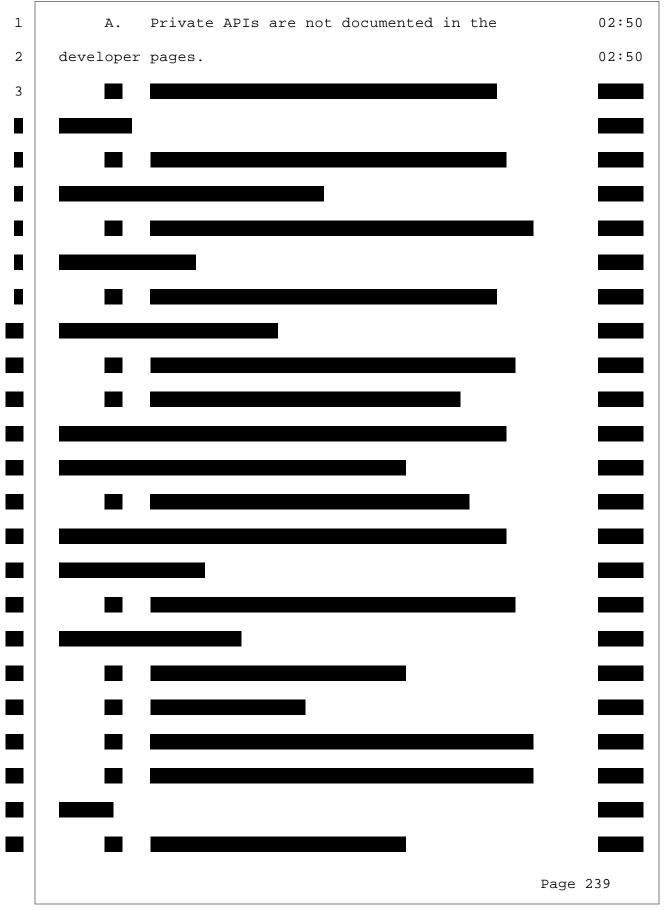
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 238 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



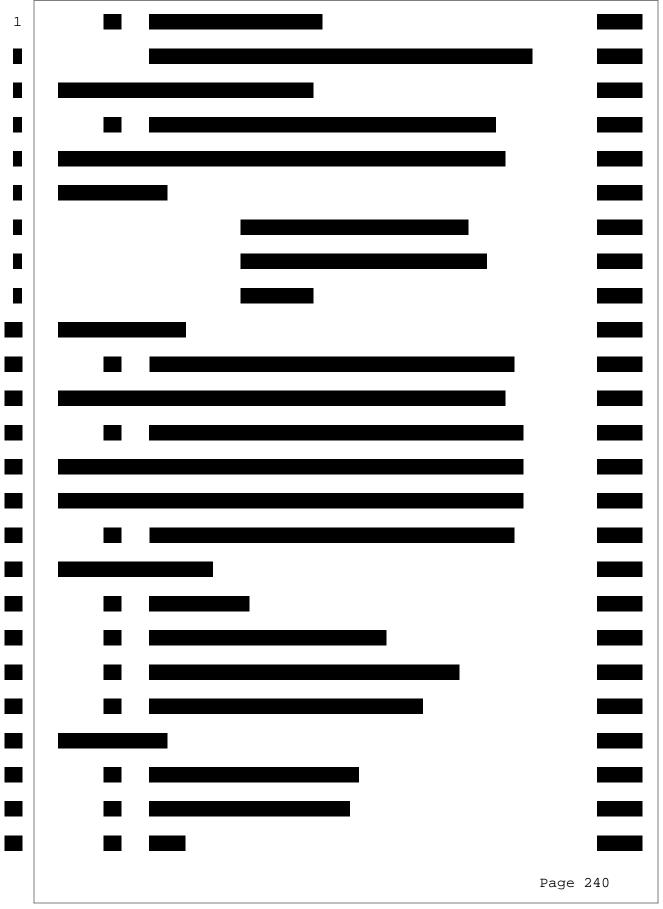
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 239 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1			
			02:49
7	Q.	Who created the developer docs and the	02:49
8	change l	ogs?	02:49
9	А.	They are automatically generated by the	02:49
10	code.		02:49
11	Q.	Who created the code?	02:49
12	Α.	An engineer.	02:49
13	Q.	Do you know who the engineers are who	02:49
14	created	the code?	02:49
15	Α.	It's probably not a single engineer that	02:49
16	created	that code.	02:49
17	Q.	Can you name one name?	02:49
18	Α.	I don't remember a specific name of an	02:49
19	engineer	· •	02:49
20	Q.	Do you know whether or not auto granted	02:50
21	friends	videos was deprecated?	02:50
22	А.	No, I don't remember the exact date.	02:50
23	Q.	Who would know?	02:50
24	А.	I really cannot tell you who would know.	02:50
25	Q.	Is that in the developer pages?	02:50
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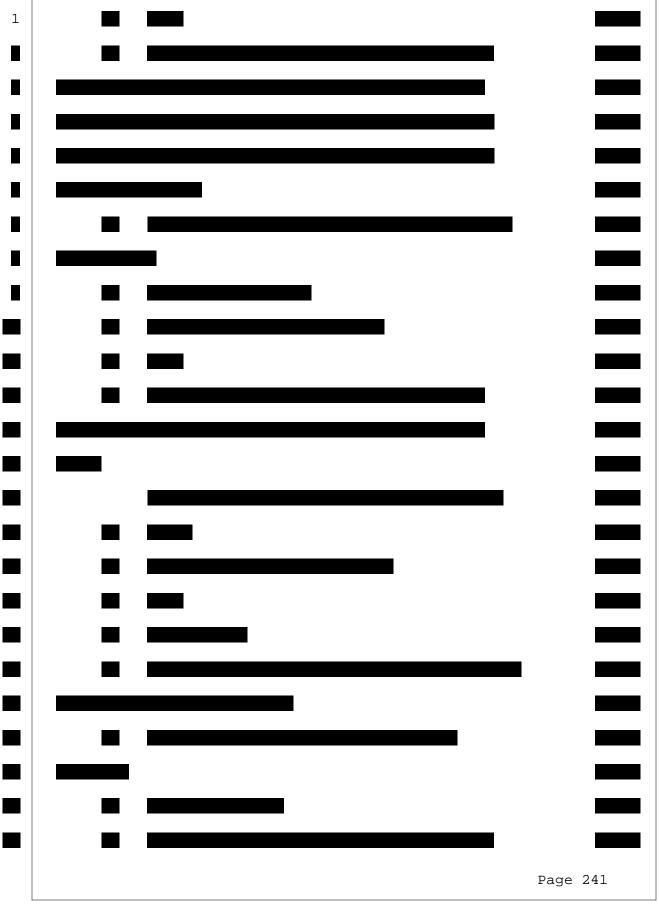
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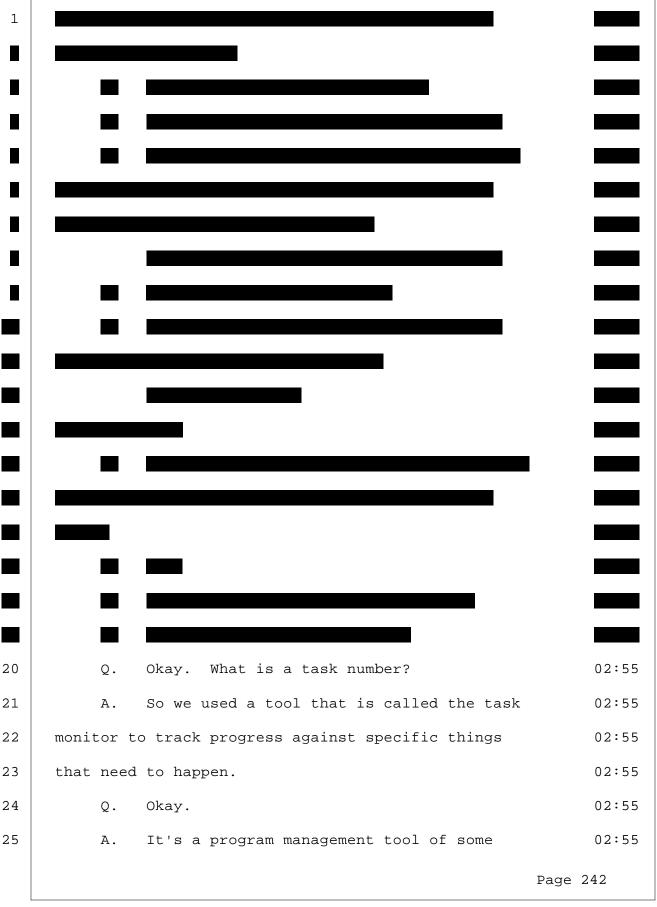
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 241 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



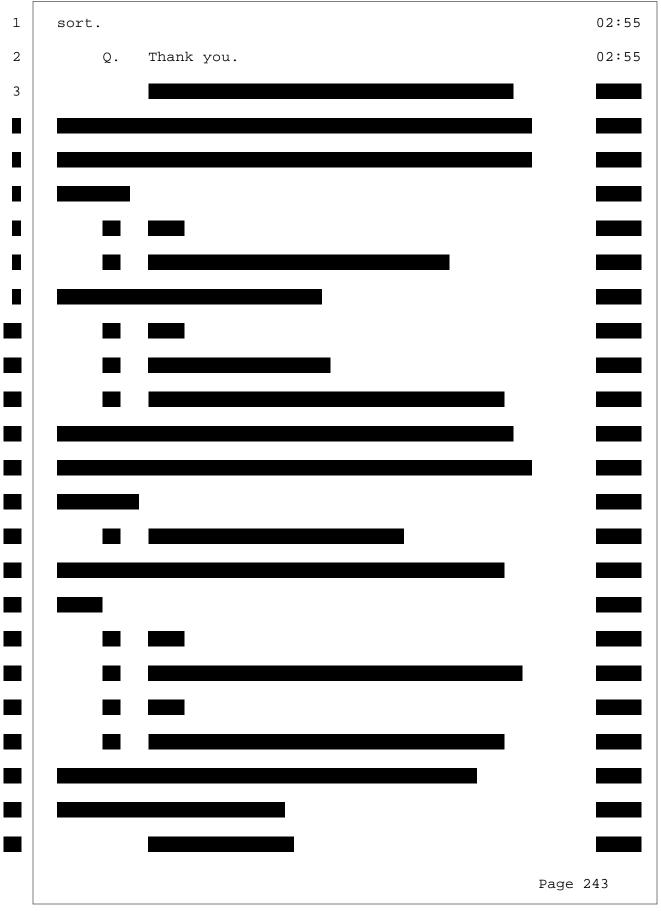
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 242 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



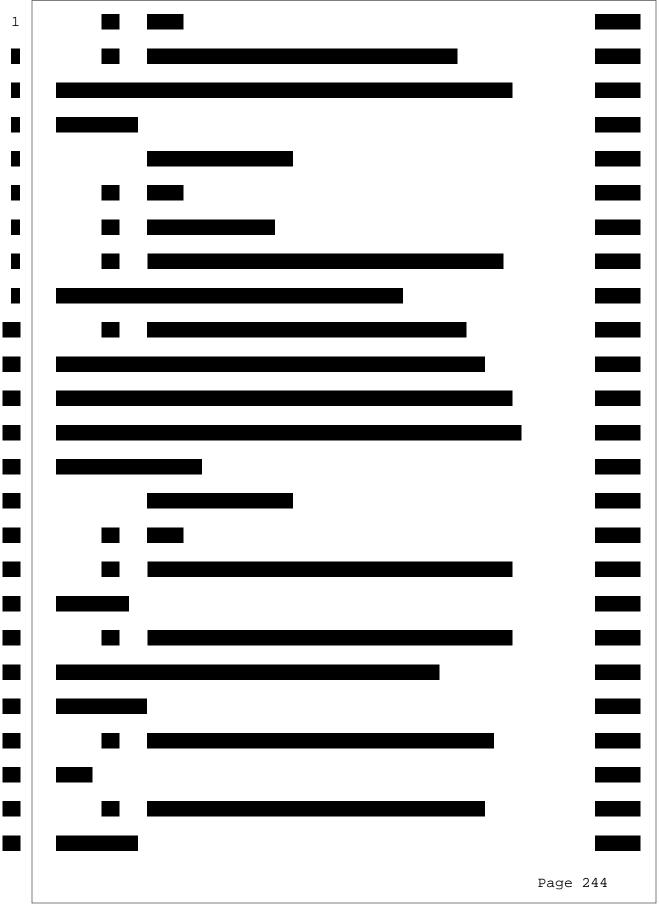
#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 243 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



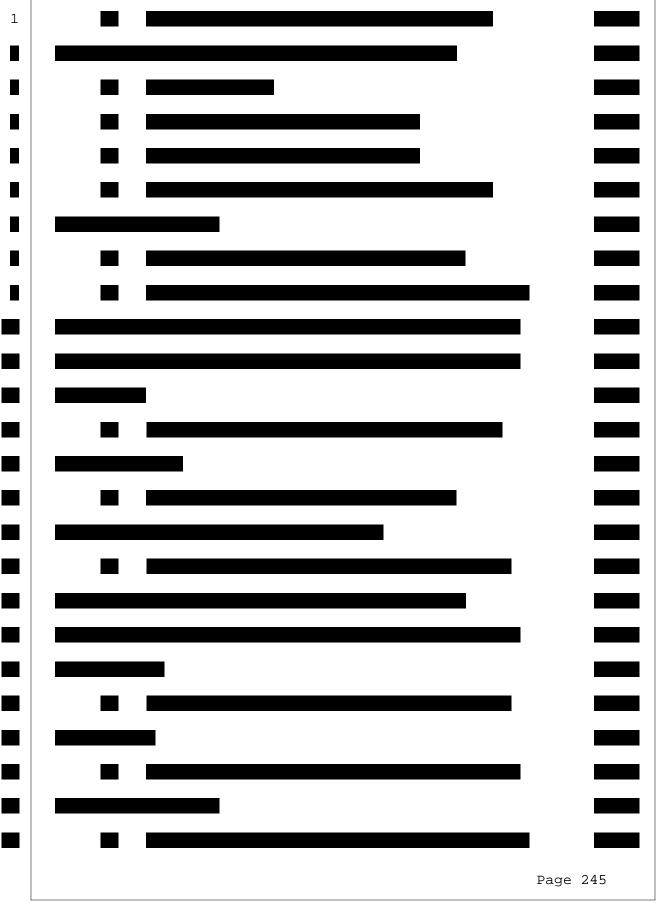
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 244 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



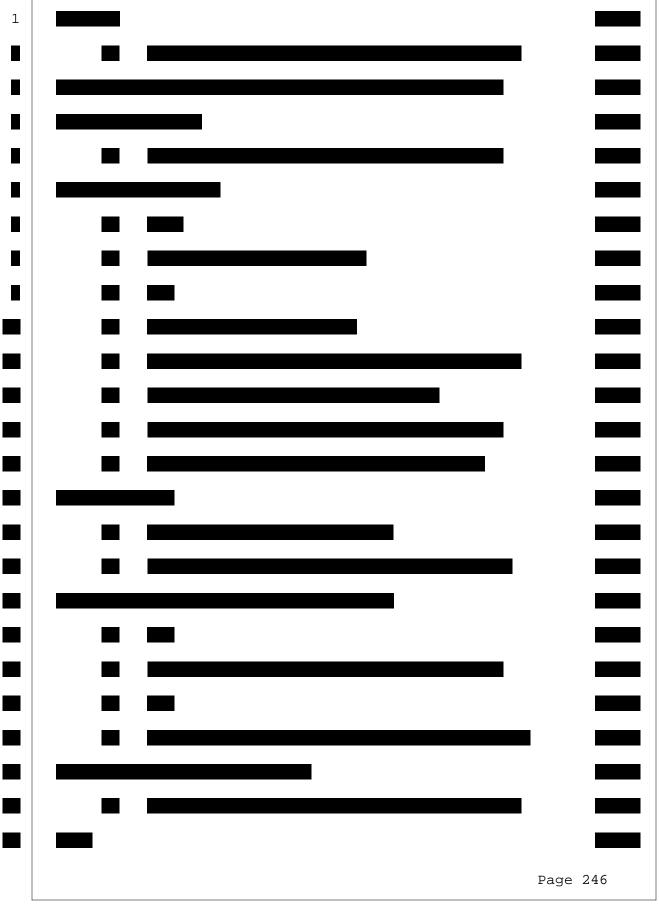
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 245 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



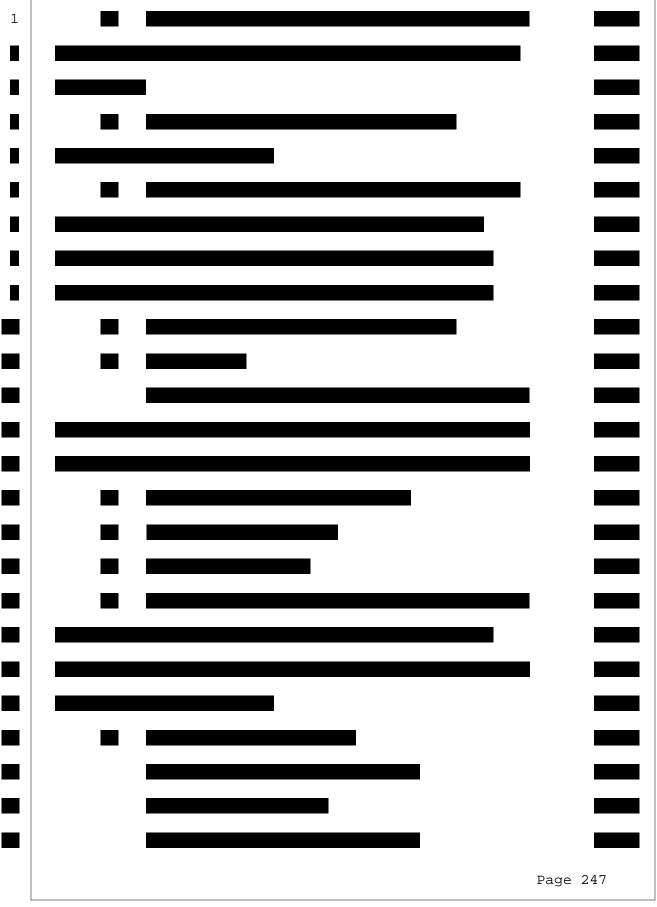
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 246 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



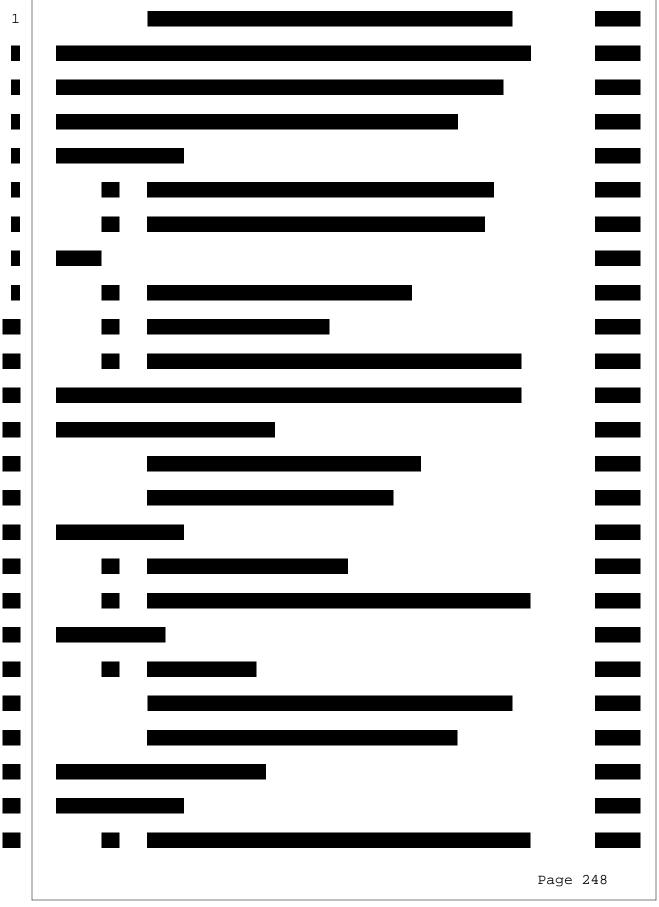
### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 247 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



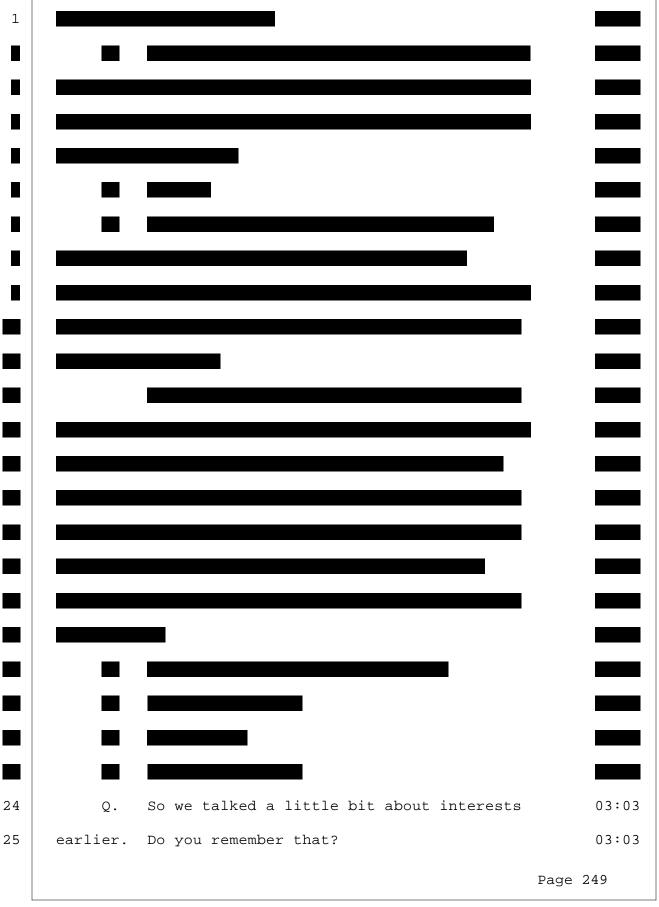
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1	A. Yes.	03:03
2	Q. So does Facebook use the data that it	03:03
3	collects about users to identify the interests that	03:03
4	they have?	03:04
5	A. Facebook identifies	03:04
6	MS. STEIN: Object to form. Objection to	03:04
7	form.	03:04
8	THE WITNESS: So Facebook identifies the	03:04
9	interest based on the user's action on the platform.	03:04
10	I like (indecipherable). It's a way for us to	03:04
11	identify a user's interests.	03:04
12	BY MS. WEAVER:	03:04
13	Q. What Facebook also receives information	03:04
14	from other third parties like app developers and	03:04
15	data brokers and other partners, correct?	03:04
16	MS. STEIN: Objection to form.	03:04
17	THE WITNESS: I guess. But as we	03:04
18	discussed, the data that's is being given by	03:04
19	third parties may be anonymized, may not be user	03:04
20	data. So I cannot answer that question without	03:04
21	BY MS. WEAVER:	03:04
22	Q. What what	03:04
23	A a little bit more specificity.	03:04
24	Q. Why does Facebook collect data from other	03:04
25	third parties?	03:04
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1	A. Why?	03:04	
	-		
2	Q. Yes.	03:04	
3	A. For many reasons. For example, if you log	03:05	
4	in with Facebook on a third-party app, there's no	03:05	
5	way for us not to be able to provide that data.	03:05	
6	It's part of the service.	03:05	
7	Q. Okay. What's another reason?	03:05	
8	A. For the purposes of allowing people to	03:05	
9	express themselves using a third-party app. Again,	03:05	
10	within 2020 sorry, 2012 and 2017, people could	03:05	
11	post back to Facebook using a third-party app. That	03:05	
12	is	03:05	
13	Q. Does Facebook use any of the information	03:05	
14	it obtains from third parties to develop the	03:05	
15	interest categories through which users are	03:05	
16	targeted?	03:05	
17	MS. STEIN: Objection to form.	03:05	
18	THE WITNESS: I don't know.	03:05	
19	BY MS. WEAVER:	03:05	
20	Q. You don't know?	03:05	
21	A. I don't think so.	03:05	
22	Q. What's the basis of your saying "I don't	03:05	
23	think so"?	03:05	
24	A. Because, again, the question is very	03:06	
25	broad. If you are talking about pixel data that are	03:06	
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1	provided by third parties, yes, that informs the ads	03:06
2	targeting, but it doesn't form the interests.	03:06
3	Q. Can you identify for a user what interest	03:06
4	categories they have been placed in?	03:06
5	A. Those categories that have been placed in,	03:06
6	which I am not I'm not sure that I agree with	03:06
7	that term would be identified for the user under	03:06
8	their app sorry, under their Facebook settings in	03:06
9	the DYI file.	03:06
10	Q. And that DIY file, is it completely	03:06
11	historical? So it will show me yesterday I was in	03:06
12	this interest category and five days ago I was in	03:06
13	this category? Or does it just list the categories	03:06
14	in general?	03:06
15	A. Just lists the categories in general.	03:06
16	Q. And if I'm no longer in a category, does	03:06
17	it list that category?	03:07
18	A. No.	03:07
19	Q. And the lists of interest change over	03:07
20	time, then, right?	03:07
21	A. It depends on how you use the platform.	03:07
22	If you haven't used the platform for the last five	03:07
23	years, probably not.	03:07
24	Q. Okay. But let's just say it's you. When	03:07
25	were you last on the platform?	03:07
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1	A. I don't know. Maybe during the lunch	03:07
2	break.	03:07
3	Q. Okay. So do your interest categories	03:07
4	change over time?	03:07
5	MS. STEIN: We're talking about 2012 to	03:07
6	2017.	03:07
7	BY MS. WEAVER:	03:07
8	Q. Did your interest categories change	03:07
9	between 2012 and 2017?	03:07
10	A. I'm pretty certain that they had.	03:07
11	Q. Okay. And what causes them to change?	03:07
12	A. The thought that they may have taken	03:07
13	action against certain entities that I have	03:07
14	expressed an affinity about.	03:07
15	Q. Do they change at all based on information	03:07
16	Facebook learns about whether those interests are	03:07
17	provide for effective ad placement?	03:08
18	A. I'm almost certain that I'm confused right	03:08
19	now. Can you repeat the question?	03:08
20	MS. WEAVER: Please read it back.	03:08
21	(The record was read by the	03:08
22	court reporter, as requested)	03:08
23	THE WITNESS: I'm still having a hard	03:08
24	time, but let me try to answer the question the way	03:08
25	I understand, all right?	03:08
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1	Are those interests used to inform ad	03:08
2	targeting criteria? The answer is yes.	03:08
3	BY MS. WEAVER:	03:08
4	Q. And Facebook provides analytic data to	03:08
5	advertisers about how effective its advertisements	03:08
6	are, correct?	03:08
7	A. Facebook provides performance data to the	03:08
8	advertisers, yes.	03:08
9	Q. What is performance data?	03:08
10	A. It's an aggregated list of data that	03:08
11	suggests whether an ad has been viewed by certain	03:09
12	number of people that have seen visited the	03:09
13	third-party website or took an action on the	03:09
14	third-party website.	03:09
15	Q. And when you say "an ad," what do you	03:09
16	mean?	03:09
17	A. An ad is being defined as a story that	03:09
18	shows up on your Facebook News Feed that is not	03:09
19	necessarily generated by a friend or a page you	03:09
20	follow but is sponsored by a third party.	03:09
21	Q. So an ad could include something that	03:09
22	wasn't well, strike that.	03:09
23	So there's one category of ads that	03:09
24	literally looks like an ad to the user, "Go buy	03:09
25	these shoes"; is that correct?	03:09
	Page	e 254

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1	A. Sure, yes.	03:09
2	Q. Right. And then there's there are	03:09
3	other categories of ads that don't look like	03:09
4	advertisements necessarily but it's something that	03:09
5	shows up in the News Feed; is that right?	03:09
6	A. Every single ad unit that shows up on your	03:09
7	News Feed is clearly identified as an ad.	03:09
8	Q. Okay. And how is it identified?	03:09
9	A. Kind of different, but I think in most	03:10
10	cases you can see that this is a sponsored, you	03:10
11	know, like story or something like that.	03:10
12	Q. Sponsored story? Is that the language	03:10
13	from 2012 to 2017?	03:10
14	A. I cannot remember the exact language. I	03:10
15	think I need to look up some historical, you know,	03:10
16	like, UI treatment.	03:10
17	Q. Are there documents at Facebook that	03:10
18	describe how interests are created?	03:10
19	A. How interests are created? I think I've	03:10
20	already responded to that question multiple times	03:10
21	today.	03:10
22	I think interests are associations for	03:10
23	certain people with certain entities entities	03:10
24	that exist on the Facebook platform and those	03:10
25	entities are public figures, businesses, anything	03:10
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1	that is not a friend.	03:10
2	Q. The question that I asked is, are there	03:10
3	documents that describe how they're created?	03:10
4	A. I can only say one.	03:11
5	Q. Are there web links or websites within	03:11
6	Facebook that discuss how interests are being	03:11
7	generated?	03:11
8	A. I haven't seen a public document about	03:11
9	that, no.	03:11
10	Q. Is there a team that focuses let me	03:11
11	just back up.	03:11
12	You've testified that interests change	03:11
13	over time, right?	03:11
14	A. Yes.	03:11
15	Q. And how who decides what the new	03:11
16	interests are and what the old interests are?	03:11
17	A. Okay. So let's assume that between 2012	03:11
18	and 2017 I started liking more pages. That's	03:11
19	something that will further expand the list of	03:11
20	interests that I have.	03:11
21	So if in 2012 I didn't like the Starbucks	03:11
22	page, but in 2015 I like the Starbucks page, that	03:11
23	means my interests can be updated. It is an action	03:11
24	that is driven and dialed by me. It's not	03:11
25	Q. What is got it. I understand.	03:11
		Page 256

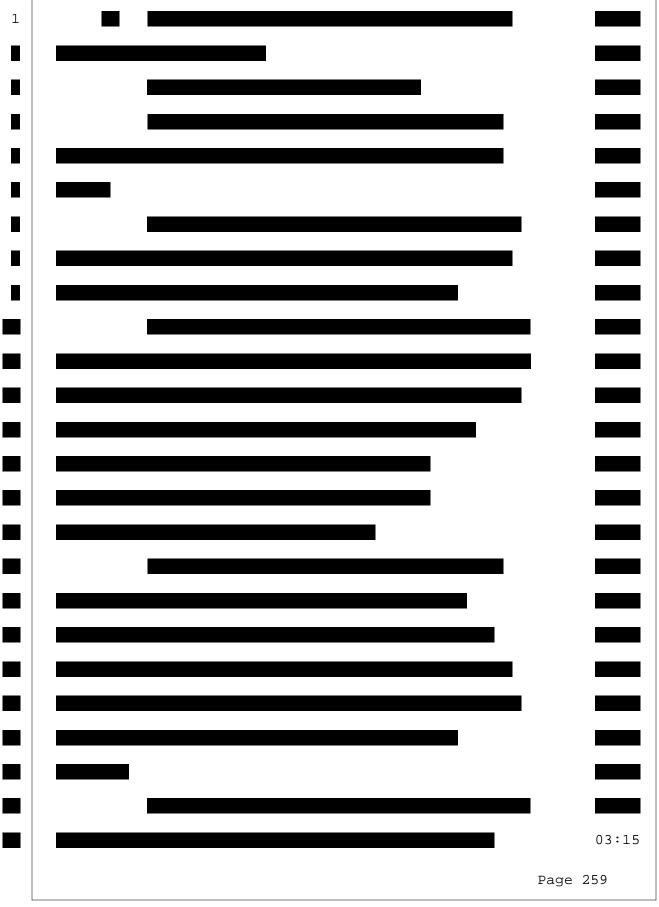
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1	A. It's not something that the PM, or product	03:12
2	manager, at Facebook or someone else will dictate.	03:12
3	It's given by the user.	03:12
4	Q. And there are algorithms that are running	03:12
5	on the page to identify these interests; is that	03:12
6	correct?	03:12
7	MS. STEIN: Objection to form.	03:12
8	THE WITNESS: A page will have a certain,	03:12
9	you know, like category associated with it.	03:12
10	BY MS. WEAVER:	03:12
11	Q. What do you mean by "second category"?	03:12
12	A. A certain category. So a page would be	03:12
13	a page of a singer or a page of an actor or a page	03:12
14	of a hairdresser or a page of a retailer. That's	03:12
15	what derives the interest.	03:12
16	Q. And so there's a historical record over	03:12
17	time of what I have been interested in the past and	03:12
18	I'm interested in today; is that fair?	03:12
19	MS. STEIN: Objection to form. Misstates	03:12
20	his testimony.	03:12
21	THE WITNESS: The the interests are	03:12
22	derived from your association with Facebook pages.	03:12
23	If that list gets remain unchanged throughout the	03:13
24	years, that would mean that the interests' graph is	03:13
25	the same, exactly the same as it was back in the	03:13
	Pag	ge 257

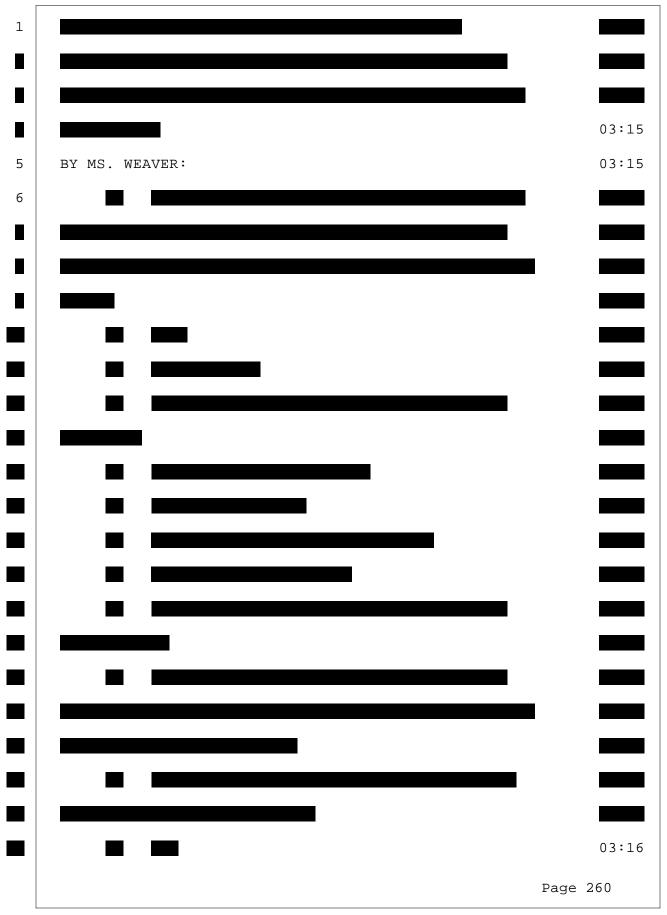
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1	day.	03:13
2	If in that time period you have expanded	03:13
3	your affiliation by liking or interacting with more	03:13
4	pages or other entities that have, you know,	03:13
5	associated with certain interests, that will	03:13
6	obviously update your interests as well.	03:13
7	BY MS. WEAVER:	03:13
8	Q. Where is the interest graph maintained?	03:13
9	A. For a given user?	03:13
10	Q. Yes.	03:13
11	A. It lives in the DYI file.	03:13
12	Q. Facebook doesn't access the DIY file,	03:13
13	right? That's for users to access data?	03:13
14	A. Well, we provide the hosting of that file.	03:13
15	Q. Right. So where is the actual data that	03:13
16	is extracted through the DIY tool? Where is the	03:13
17	actual data in the interest graph maintained?	03:13
18	A. I'm not sure I understand the question.	03:13
19	Q. Okay. The DIY file is created through a	03:14
20	tool to face the users, right?	03:14
21	A. Yes.	03:14
22	Q. Okay. If I'm an advertiser and I'm	03:14
23	come to you and I say "I want to target people with	03:14
24	these interests," does Facebook go to the DIY tool?	03:14
25	A. To do a lookup, no, that's not how.	03:14
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1	Q. Why does Facebook allow advertisers to	03:16
2	custom target advertising through the selection of	03:16
3	interests?	03:17
4	MS. STEIN: Objection to form. Beyond the	03:17
5	scope.	03:17
6	Are you really asking questions about	03:17
7	targeting advertising? Like that directly, Lesley?	03:17
8	I know you've done half the depo on it, but now you	03:17
9	want to know why Facebook does targeted advertising?	03:17
10	BY MS. WEAVER:	03:17
11	Q. Please answer the question.	03:17
12	A. Okay. So there are a couple of	03:17
13	differentials here.	03:17
14	The first one is, how does advertisement	03:17
15	work in the first place? So a business wants to	03:17
16	advertise on platforms where they can get better	03:17
17	ROI, better return on the investment for this	03:17
18	advertisement. A lot of businesses still advertise	03:17
19	on TV.	03:17
20	And let's use Super Bowl as an example	03:17
21	because the audience that will attend Super Bowl is	03:17
22	falling into the demographics of users that business	03:17
23	is trying to attract. That's that's why, I	03:18
24	guess, you see a lot of car manufacturers or junk	03:18
25	foods being advertised during Super Bowl. Now,	03:18
	Page	261

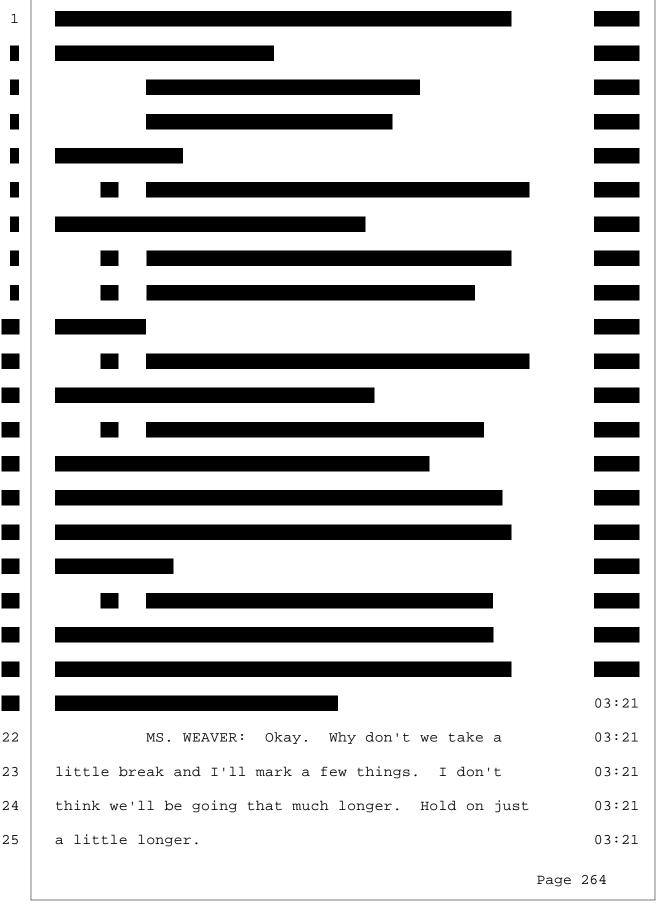
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 263 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	that's one way of doing advertisement. It's mostly	03:18
2	brand.	03:18
3	THE REPORTER: It's mostly what? I'm	03:18
4	sorry.	03:18
5	THE WITNESS: Brand. Brand.	03:18
6	A modern way of doing advertisement is by	03:18
7	effective advertising in platforms that can provide	03:18
8	a little bit more clarity and on the intent.	03:18
9	Because in that scenario you have higher chances of	03:18
10	having a better ROI for your marketing spend.	03:18
11	Facebook provides granular way for	03:18
12	advertisers to hit the right audiences because that	03:18
13	is very effective way for businesses and, therefore,	03:18
14	actually contributes to our business model very	03:18
15	effectively. But at the same time we truly believe	03:18
16	that relevant ads have the opportunity to build a	03:18
17	better product experience for the users as well.	03:18
18	I can give you from my personal point of	03:19
19	view my perspective of using Facebook and Instagram	03:19
20	and all our products have become definitely better	03:19
21	when the ads that I could see on those products are	03:19
22	more relevant to me.	03:19
23	BY MS. WEAVER:	03:19
24	Q. Do you believe that most users join	03:19
25	Facebook because they want to receive ads?	03:19
	 	age 262

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1	MS. STEIN: Objection to form. Lacks	03:19
2	foundation. Beyond the scope.	03:19
3	THE WITNESS: It's really hard for me to	03:19
4	understand or be able to identify the intention of	03:19
5	2.8 billion people.	03:19
6	BY MS. WEAVER:	03:19
7		
		Daga 263
		Page 263

#### Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 265 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 266 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	We can go off the record.	03:21
2	THE VIDEOGRAPHER: We are off the record	03:21
3	at 3:21 p.m.	03:21
4	(Recess.)	03:34
5	(Off record: 3:21 p.m.)	03:34
6	(On record: 3:34 p.m.)	03:34
7	THE VIDEOGRAPHER: We are on the record at	03:34
8	3:34 p.m.	03:34
9	BY MS. WEAVER:	03:34
10	Q. You understand you're still under oath?	03:34
11	A. Yes, I do.	03:34
12	Q. Okay. So were you involved in collecting	03:34
13	or looking for documents that Facebook possesses	03:34
14	relating to the plaintiffs in this action?	03:34
15	A. No.	03:34
16	Q. Okay. Do you know what Facebook did to	03:34
17	collect documents relating to the plaintiffs in this	03:34
18	action?	03:34
19	A. My understanding is that we made available	03:34
20	the DYI file for each of the plaintiffs.	03:34
21		
		03:34
24	(Exhibit 5 was marked for	03:34
25	identification and attached.)	03:34
	Page	265

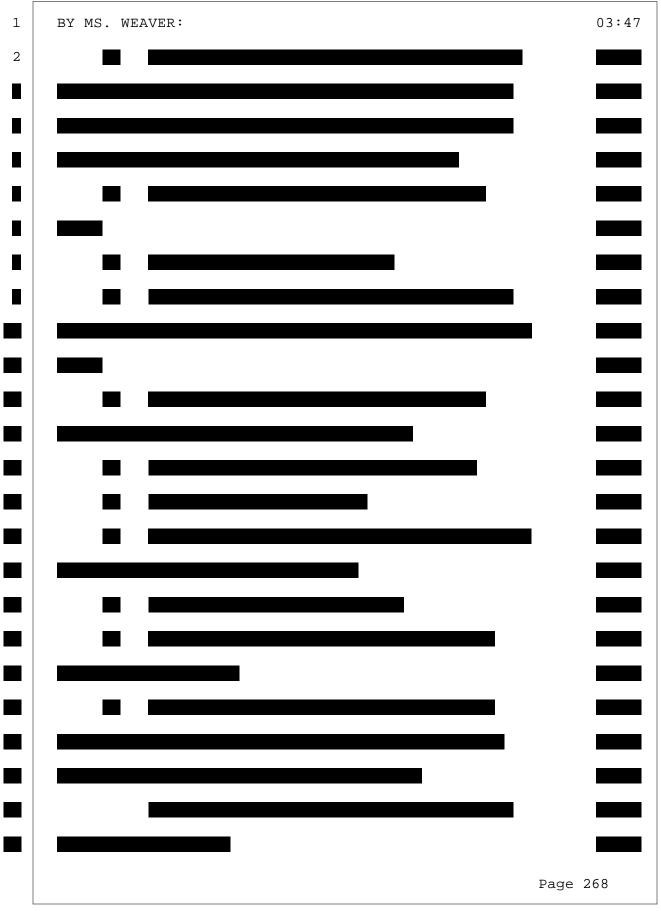
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 267 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	(Exhibit 6 was marked for	03:34
2	identification and attached	03:34
3	hereto.)	03:34
4	THE WITNESS: Do you want me to do	03:34
5	anything?	03:35
6	BY MS. WEAVER:	03:35
7	Q. Yes, will you pull them up?	03:35
8	A. Shall we start with 5?	03:35
9	Q. Sure. Take a look at both Exhibits 5 and	03:35
10	6 and tell me if you've seen them before.	03:35
11	A. I'm just trying to understand what is the	03:35
12	file I'm looking at.	03:35
13	(Pause while witness peruses document.)	03:35
14	A. Okay. Can I look at 6?	03:35
15	Q. Please do.	03:36
16	(Pause while witness peruses document.)	03:36
17	A. Okay.	03:36
18	Q. Have you seen these documents before?	03:36
19	A. No, I haven't.	03:36
20	Q. Okay. Do you are you aware of Facebook	03:36
21	searching Hive databases to obtain documents	03:36
22	relating to the plaintiffs in this case?	03:36
23	MS. STEIN: Objection to form.	03:36
24	THE WITNESS: I don't know how to respond	03:36
25	to that question. Are you talking about Hive	03:36
	Pag	je 266

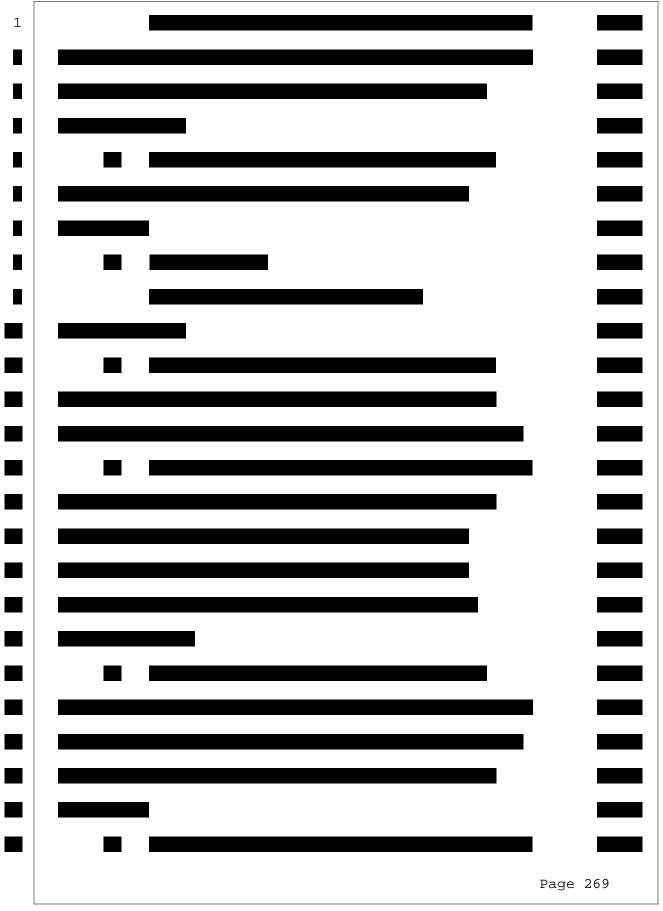
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 268 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	specifically?	03:36
2	BY MS. WEAVER:	03:36
3		
		03:37
14	Q. Okay. Do you know why I guess if you	03:37
15	don't know anything about that, I guess we'll just	03:37
16	have to come back.	03:37
17	MS. WEAVER: I think we need to go off the	03:37
18	record again. We'll be back. We're off the record.	03:37
19	THE VIDEOGRAPHER: We are off the record	03:37
20	at 3:37 p.m.	03:37
21	(Recess.)	03:38
22	(Off record: 3:37 p.m.)	03:38
23	(On record: 3:47 p.m.)	03:38
24	THE VIDEOGRAPHER: We're on the record at	03:47
25	3:47 p.m.	03:47
	Pa	age 267

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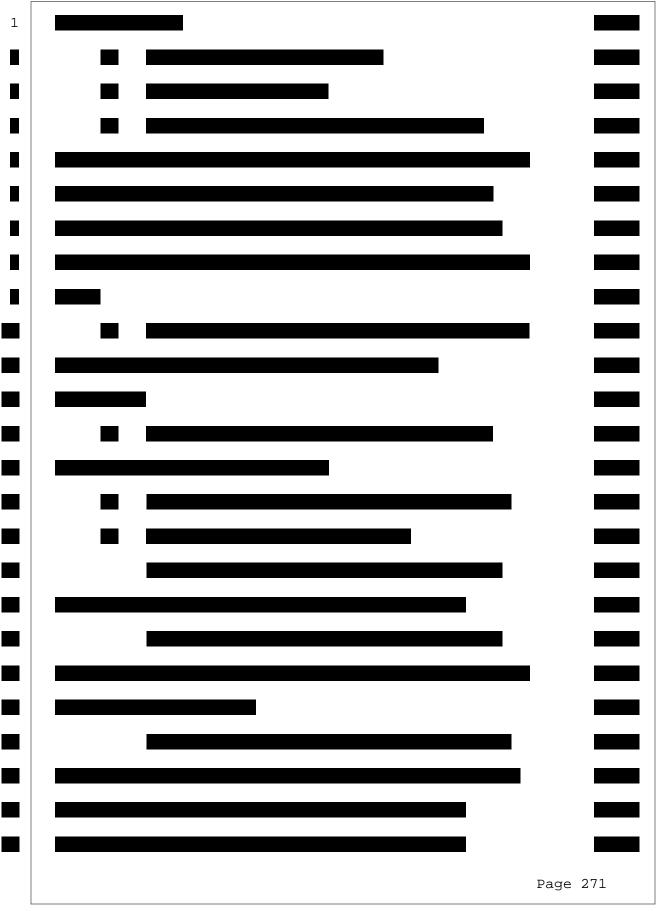
## Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 270 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY



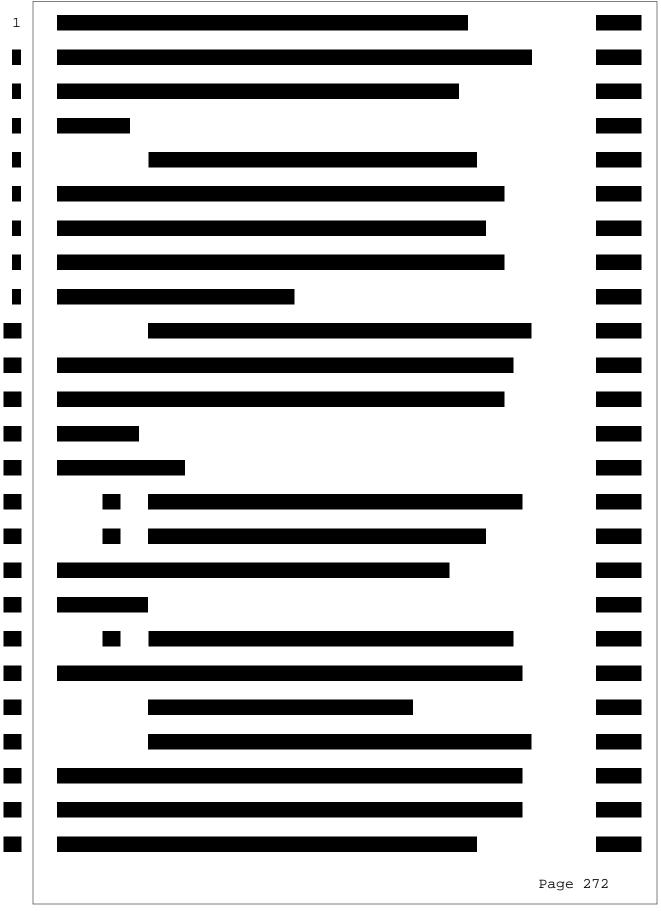
# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 271 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1		
		03:50
4	Q. And do you believe that's contained in the	03:50
5	DIY file?	03:50
6	A. So the DYI file would include information	03:50
7	about the sorry. Let me take a step back just to	03:50
8	make sure that I answer the question appropriately.	03:50
9	So the DYI file would have information	03:50
10	about a photo and when you uploaded that photo. But	03:50
11	if you really want to check the privacy setting of	03:50
12	that photo there is probably a link that will link	03:50
13	you to the original post to check the privacy	03:50
14	setting of that photo.	03:50
15	Q. You say "probably." Do you know?	03:50
16	A. I I think that's my understanding of	03:50
17	what I would be looking at, the DYI file, if I had	03:50
18	it in front of me.	03:50
19		
		03:51
25		
	Pa	age 270

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	03:53
Q. Okay. Has the data made available through	03:53
the DYI tool changed over time?	03:53
A. It's a very broad question. Are you	03:53
talking about specific individual?	03:53
Q. I'm talking from 2012 to 2017, what how	03:53
has data made available in the DIY tool changed over	03:5
time?	03:53
A. I think the DYI file presents activity	03:53
that you have on the platform, and that's problem.	03:53
Because people are doing different things on the	03:54
platform than they did in 2012.	03:54
Q. Right. I'm not talking about the content;	03:54
I'm talking about the capabilities. So how has it	03:54
over time changed what users could obtain about	03:54
their activity through the DYI tool?	03:54
A. Again, the content is available if the	03:54
Dage	e 273

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1	features are available. In that sense, yes, the	03:54
2	data would have changed.	03:54
3	Q. Did the fields change?	03:54
4	A. The fields described pieces of data, so	03:54
5	yes, they would have changed.	03:54
6	Q. Okay. Well, did the what I'm asking	03:54
7	is, in 2012 could I search for privacy settings, but	03:54
8	in 2017 I could not?	03:54
9	A. No, that's that wouldn't have changed.	03:54
10	Q. Are the same categories of information	03:54
11	available in the DYI tool in 2012 as it was in 2017?	03:54
12	A. Again, for the sake of the argument, if	03:54
13	you were able to see photos posted in 2017, that	03:55
14	meant that the composer allowed you to post photos	03:55
15	on Facebook. If in 2012 you could only post text,	03:55
16	that means that you wouldn't be able to see any	03:55
17	photos because you wouldn't be able to post any	03:55
18	photos.	03:55
19	Q. We are not understanding each other.	03:55
20	I understand that my content changes over	03:55
21	time. The question is whether the categories of	03:55
22	objects collected and made available in the DYI tool	03:55
23	changed over time.	03:55
24	MS. STEIN: And, Lesley, I actually and	03:55
25	I'm not trying to be combative. I actually think he	03:55
	Page	e 274

# Case 3:18-md-02843-VC Document 1006-1 Filed 08/24/22 Page 276 of 333 HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

1	was answering your question. So I don't want I	03:55
2	don't want to repeat what the witness said.	03:55
3	But, K.P., why don't you try again.	03:55
4	THE WITNESS: I'll try one more time.	03:55
5	The way the question is framed suggests	03:55
6	that nothing would change. And I'm answering the	03:55
7	question by saying, yes, it would change because the	03:55
8	features are available and the comment that can be	03:55
9	posted in the app will change. As a consequence of	03:55
10	that, the data that shows up in the DYI will be	03:55
11	different. 2017	03:55
12	BY MS. WEAVER:	03:55
13	Q. Do you	03:56
14	A. Between 2012 and 2017, Facebook the	03:56
15	Facebook app provided different capabilities to the	03:56
16	users. Some of them may have been deprecated since.	03:56
17	Some of them may be still available. But the way	03:56
18	your DYI file looked in 2012 cannot be the same as	03:56
19	the way it looks in 2017.	03:56
20	And I'm not just talking about the same	03:56
21	things that you did in 2012 and repeated in 2017.	03:56
22	I'm talking about the enhancement with additional	03:56
23	pieces of information that may not have been	03:56
24	possible in 2012.	03:56
25	Q. So who decided what data is collected in	03:56
	Page	e 275

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1	the DYI tool?	03:56
2	A. I I don't know.	03:56
3	MS. WEAVER: Okay. I think we have no	03:56
4	more questions at this time. This deposition	03:56
5	remains open. There are a number of questions that	03:56
6	were not answered.	03:56
7	Q. Oh, I have one more question. How long	03:56
8	has the DYI tool existed?	03:57
9	A. I believe since 2012-2013 or something	03:57
10	around that time frame.	03:57
11	BY MS. WEAVER:	03:57
12	Q. So for data prior to that time, is there	03:57
13	any record for users of what data Facebook	03:57
14	maintained on them?	03:57
15	A. The DYI files shouldn't show data for	03:57
16	those users even prior to the date the tool was	03:57
17	available to users. I'm talking about the data that	03:57
18	the tool was exposed to users.	03:57
19	Q. When did the DYI tool begin collecting	03:57
20	data about users?	03:57
21	MS. STEIN: Objection to form.	03:57
22	THE WITNESS: I think everybody that has a	03:57
23	Facebook account since forever, they would be able	03:57
24	to download the DYI file and find that information	03:57
25	to be available in the DYI file.	03:57
	Page	276

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-		
1	The question is when can they when have	03:57
2	they started downloading that file? And it's my	03:57
3	understanding is that they the ability for people	03:57
4	to download information that Facebook had on their	03:57
5	behalf started in 2012-2013 time frame.	03:58
6	MS. WEAVER: Okay. I think we have no	03:58
7	further questions. And, again, the deposition	03:58
3	remains open.	03:58
9	We can go off the record.	03:58
כ	MS. STEIN: Well, I don't want to go off	03:58
L	the record yet because I would like to say that we	03:58
2	disagree and object to the idea that this deposition	03:58
3	is being held open.	03:58
4	And, you know, we'll just express our	03:58
5	disappointment that, you know, the witness spent a	03:58
5	lot of time preparing for this deposition on the	03:58
7	topics that Judge Corley ordered this deposition to	03:58
3	be on, and, you know, we're disappointed that, you	03:58
9	know, there wasn't time spent on those topics.	03:58
0		
		Page 277
- 1		

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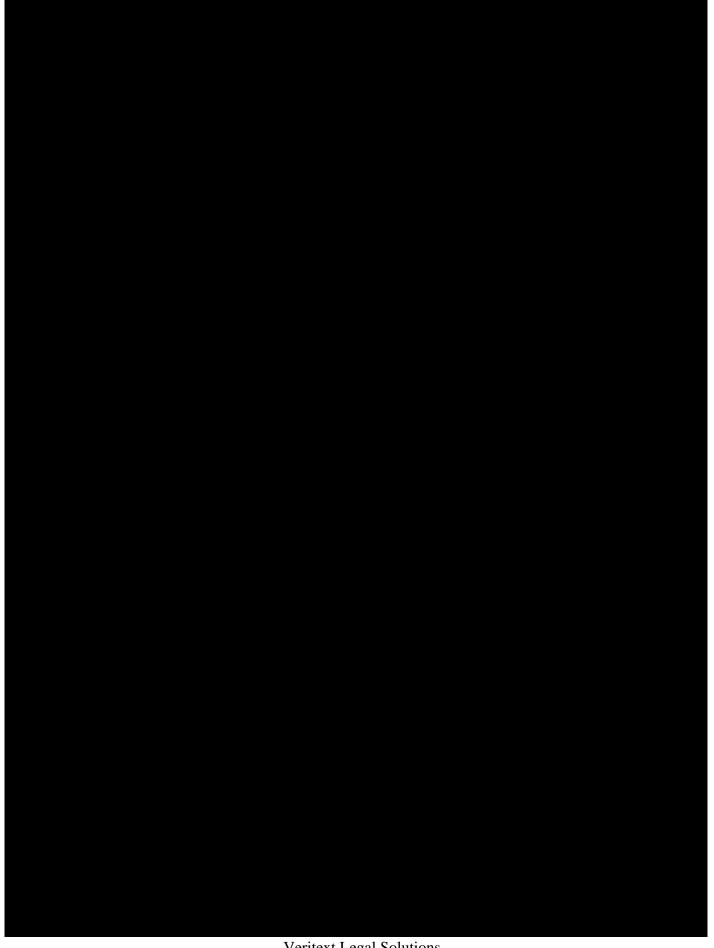
1	THE VIDEOGRAPHER: We are off the record	03:58
2	at 3:58 p.m., and this concludes data testimony	03:58
3	given by Konstantinos Papamiltiadis. The total	03:58
4	number of media units used was six and will be	03:59
5	retained by Veritext Legal Solutions.	03:59
6	MS. WEAVER: Thank you very much, Mr.	03:59
7	Papamiltiadis.	03:59
8	THE WITNESS: Thank you for having me.	03:59
9	(At the time of 3:58 p.m., the deposition	04:00
10	was concluded.)	
11		
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	Pag	e 278

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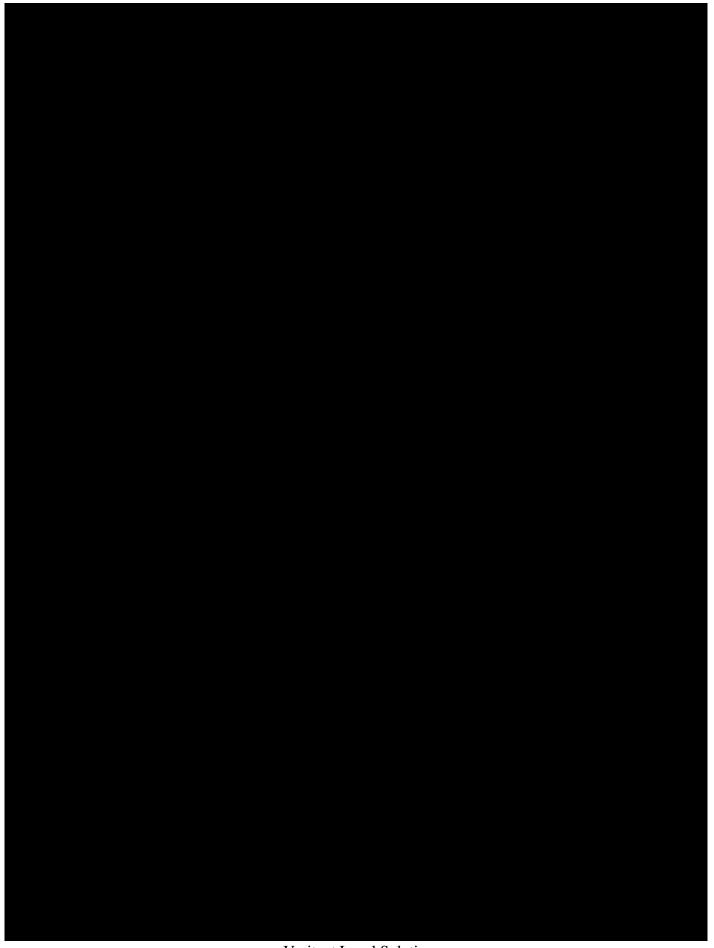
1	PENALTY OF PERJURY CERTIFICATE
2	
3	I hereby declare I am the witness in the within
4	matter, that I have read the foregoing transcript and
5	know the contents thereof; that I declare that the same
6	is true to my knowledge, except as to the matters which
7	are therein stated upon my information or belief, and
8	as to those matters, I believe them to be true.
9	I declare being aware of the penalties of
10	perjury, that the foregoing answers are true and
11	correct.
12	
13	
14	
15	Executed on the day of, 20, at
16	·
17	(CITY) (STATE)
18	
19	
20	KONSTANTINOS PAPAMILTIADIS
21	FACEBOOK INC. REPRESENTATIVE
22	
23	
24	
25	
	Daga 270
	Page 279

#### 1 CERTIFICATE OF REPORTER I, ASHALA TYLOR, CSR No. 2436, in and for the State 2 of California, do hereby certify: 3 That the foregoing proceedings were taken before me 4 5 at the time and place herein set forth; that any witnesses in the foregoing proceedings, prior to 6 testifying, were placed under oath; that a verbatim record of the proceedings were made by me using machine 8 9 shorthand which was thereafter transcribed under my 10 direction; further that the foregoing is an accurate 11 transcription thereof. That before the completion of the deposition, 12 review of the transcript was not requested. 13 I further certify that I am neither financially 14 interested in this action nor a relative or employee of 15 16 any attorney or any of the parties hereto. 17 In compliance with Section 8016 of the Business and Professions Code, I certify under penalty of perjury 18 that I am a Certified Shorthand Reporter with 19 20 California License No. 2436 in full force and effect. 21 WITNESS my hand this 26th day of February, 2021. 22 a. zlor 23 2.4 2.5 Ashala Tylor, CSR #2436, RPR, CRR, CLR Page 280

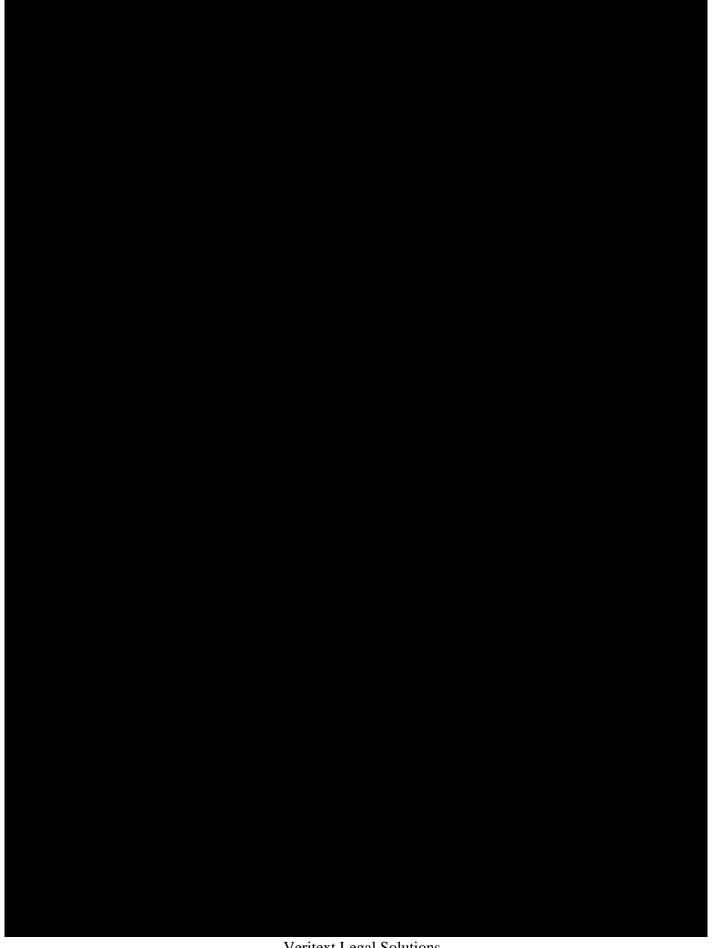
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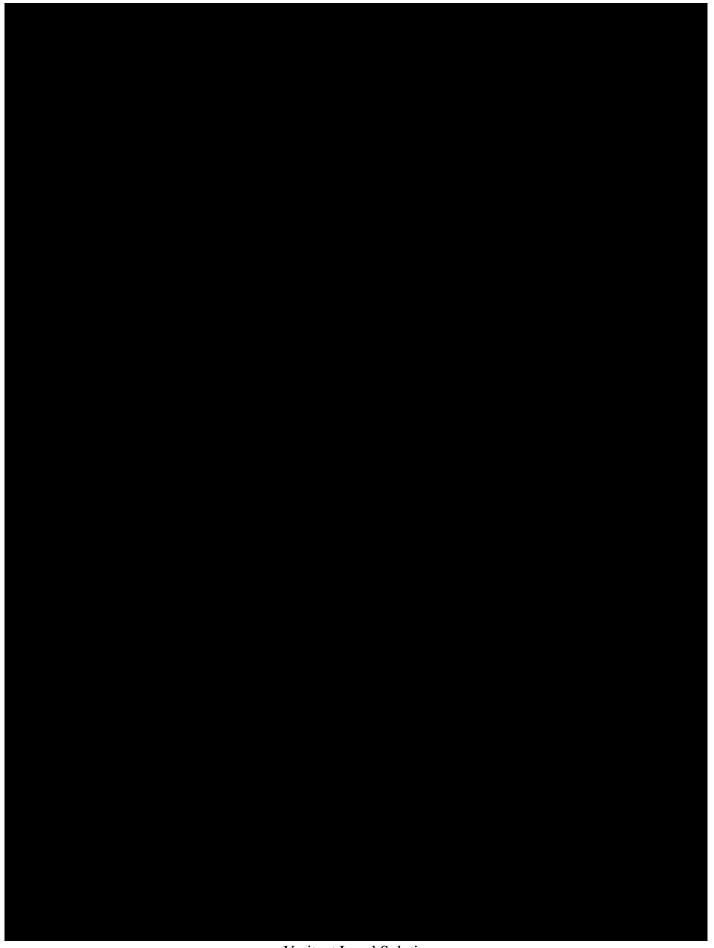
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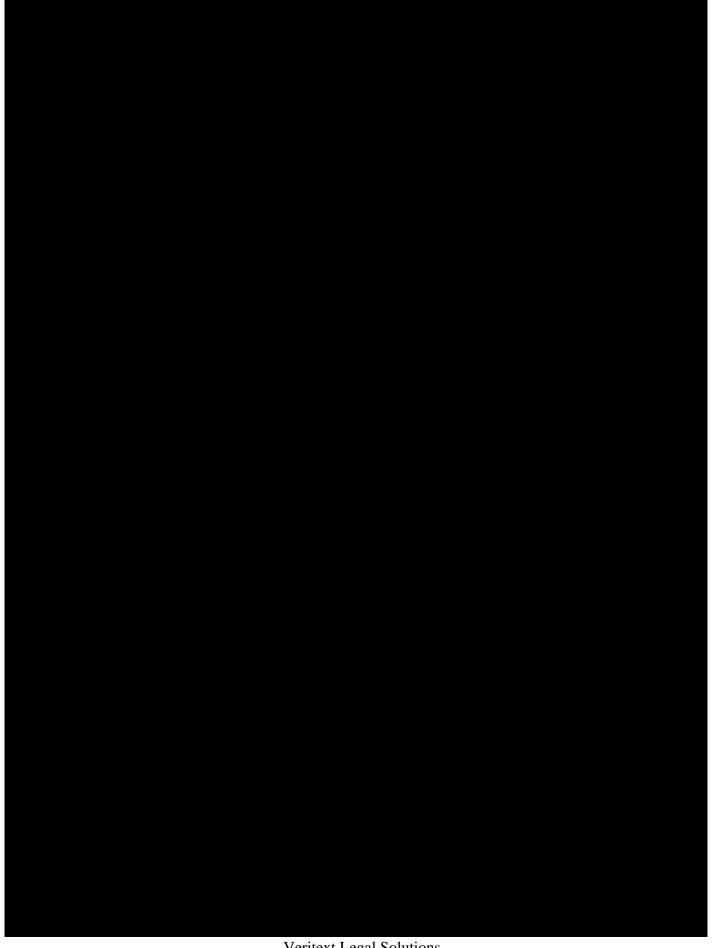
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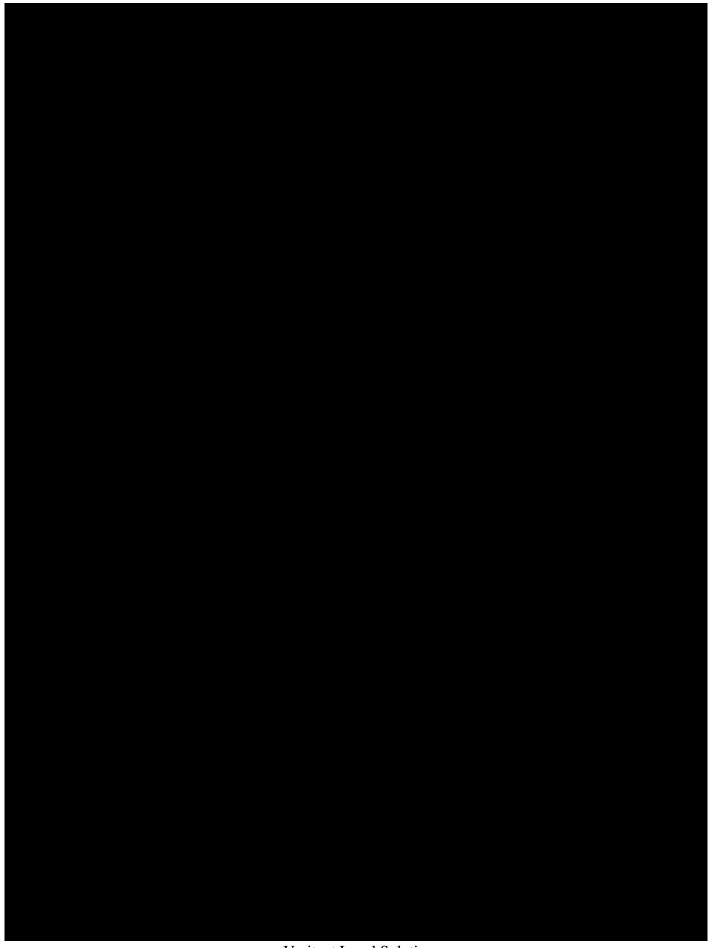
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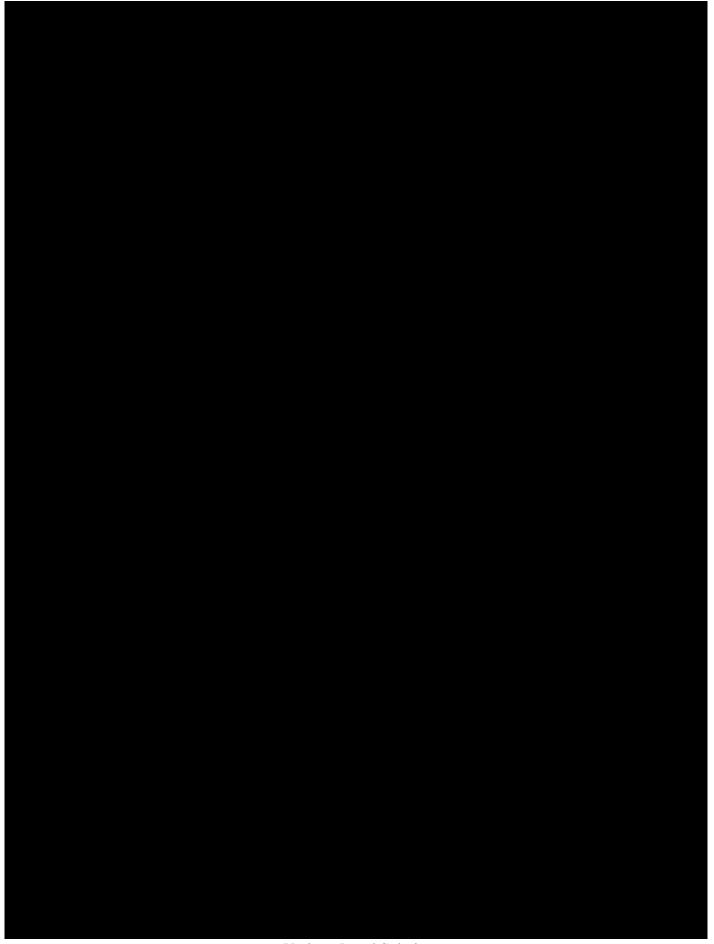
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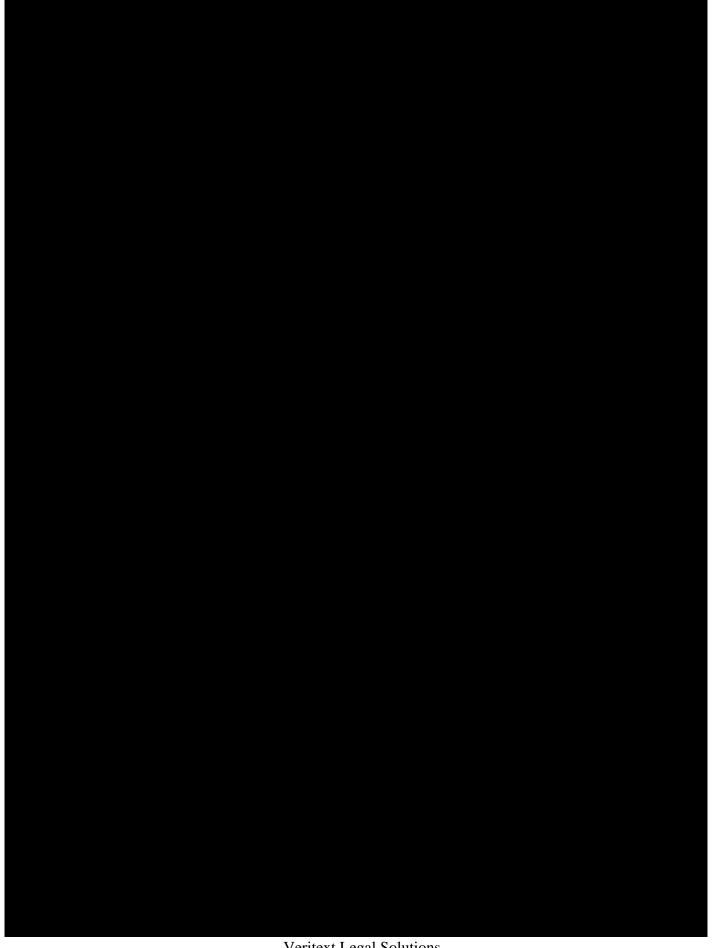
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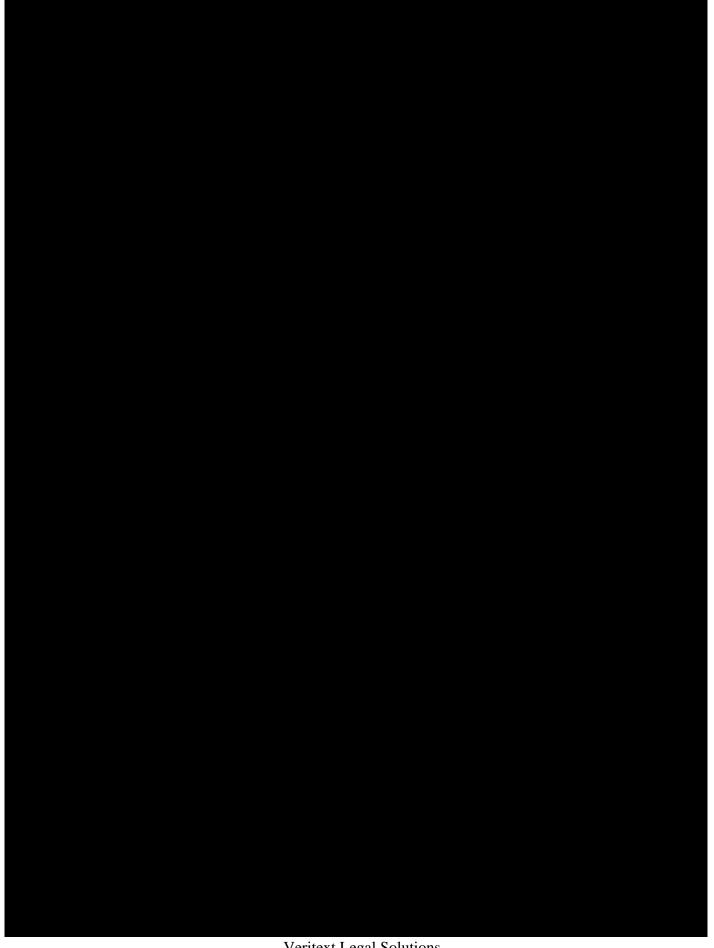
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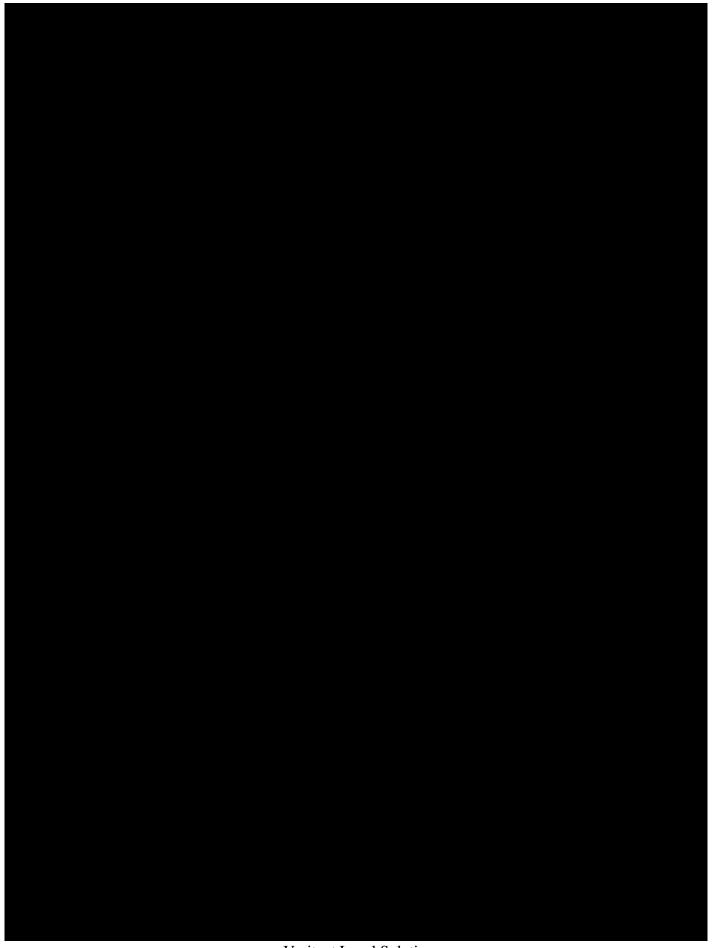
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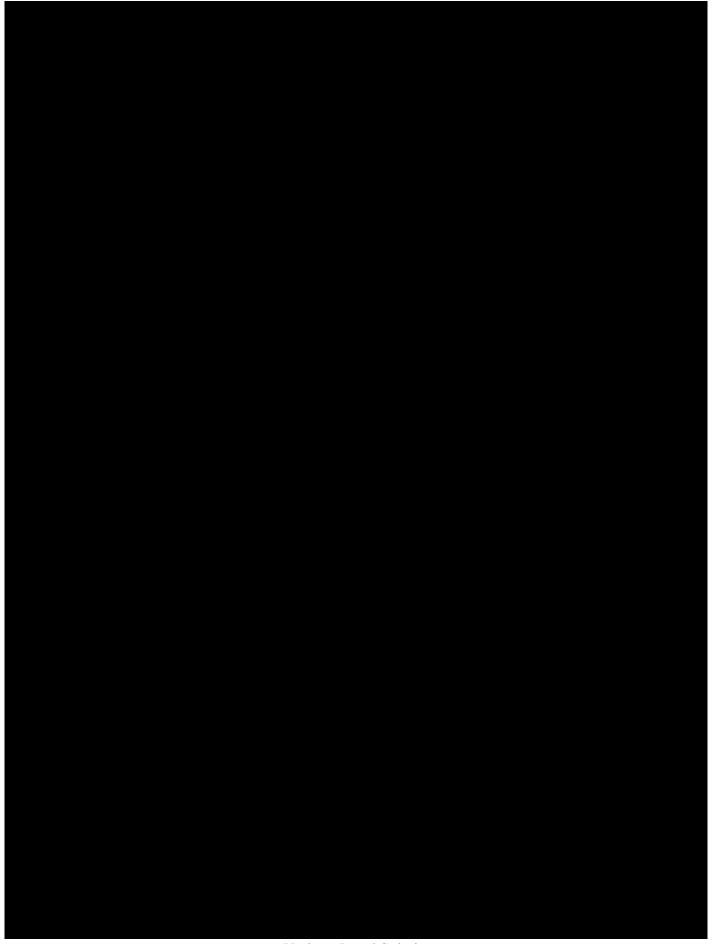
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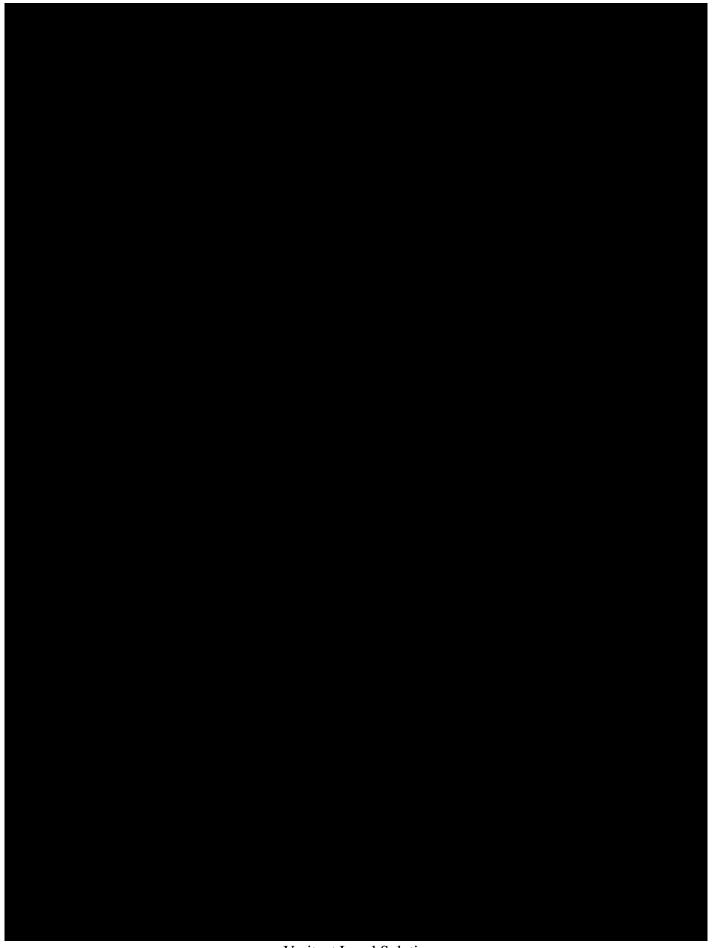
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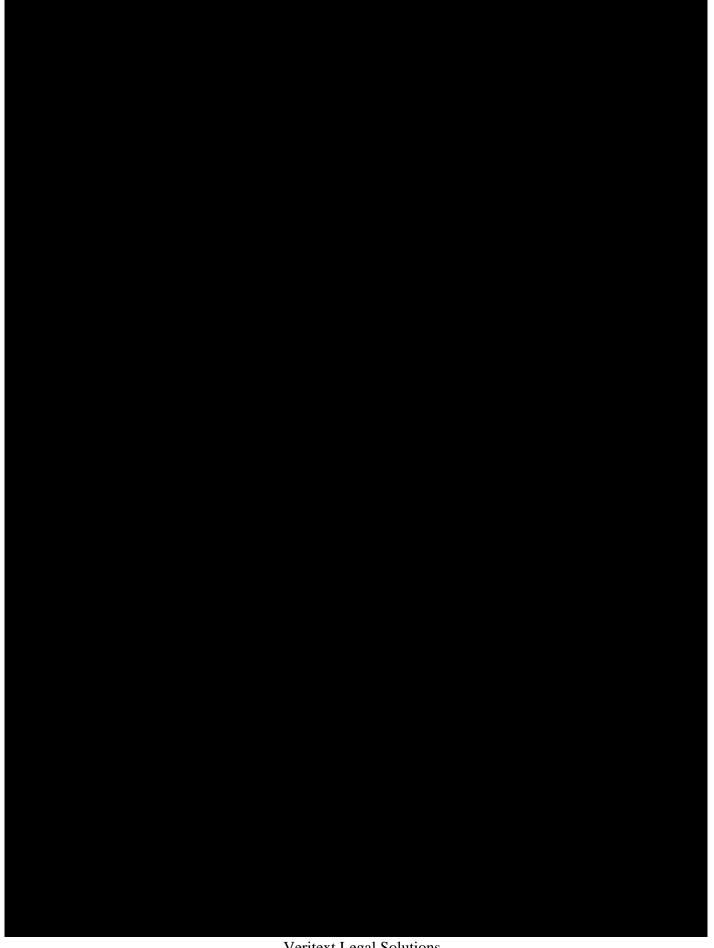
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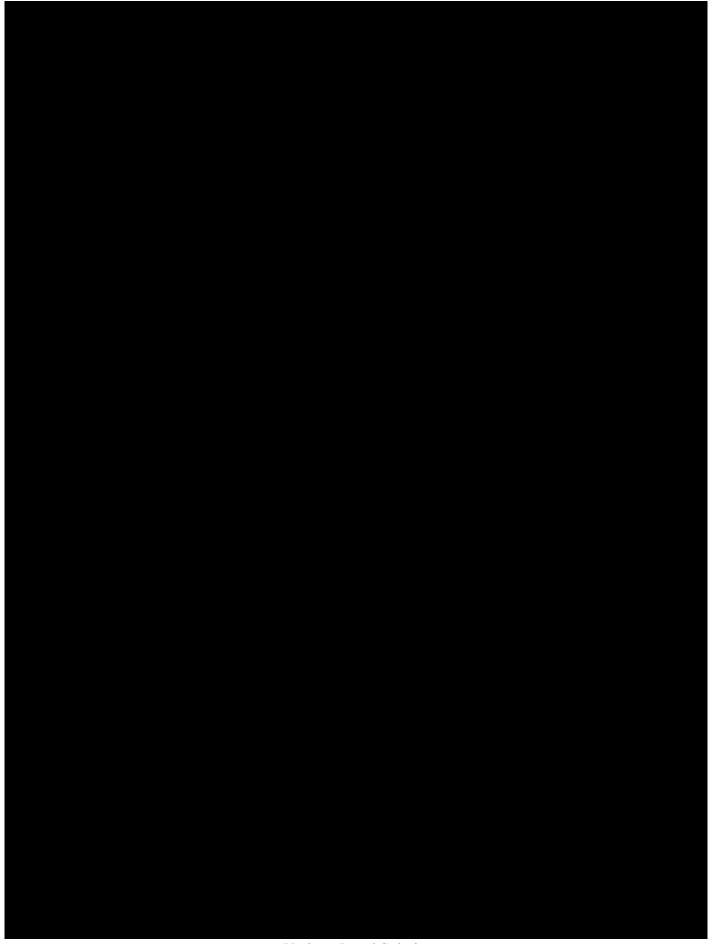
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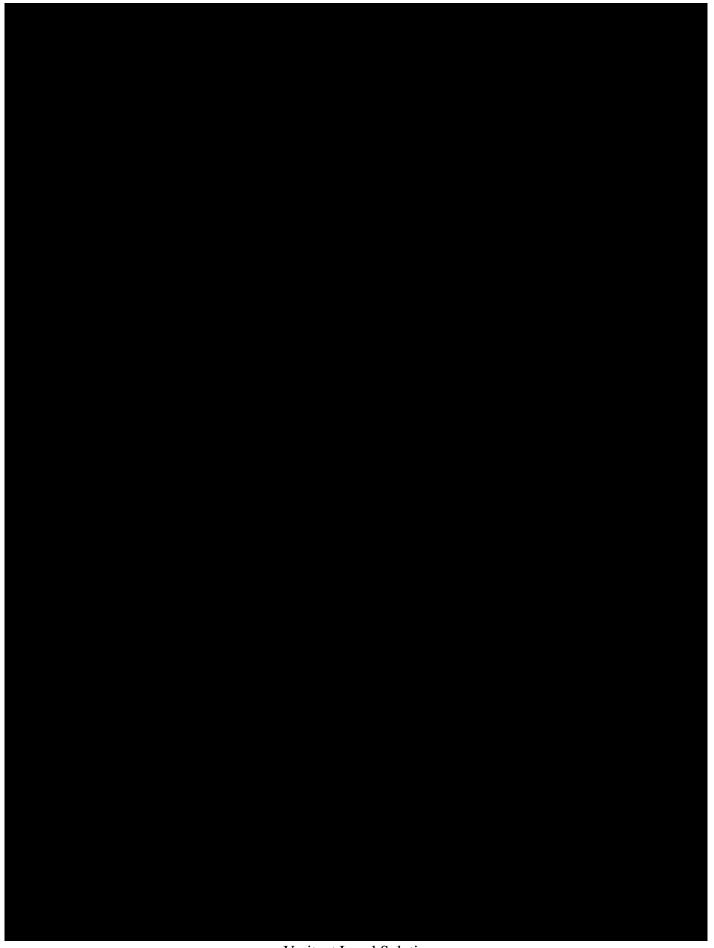
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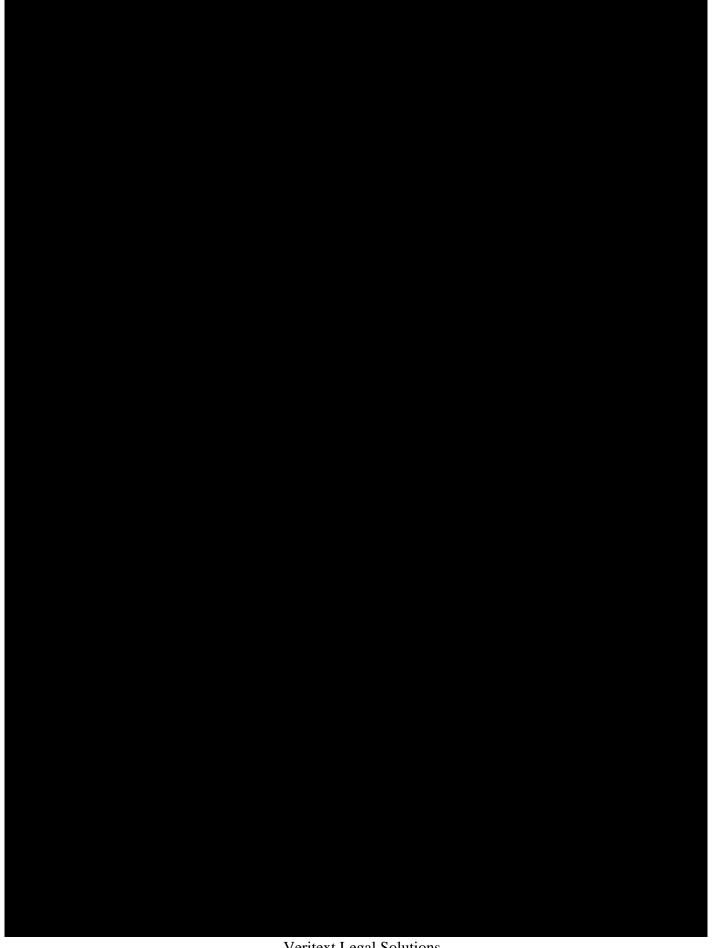
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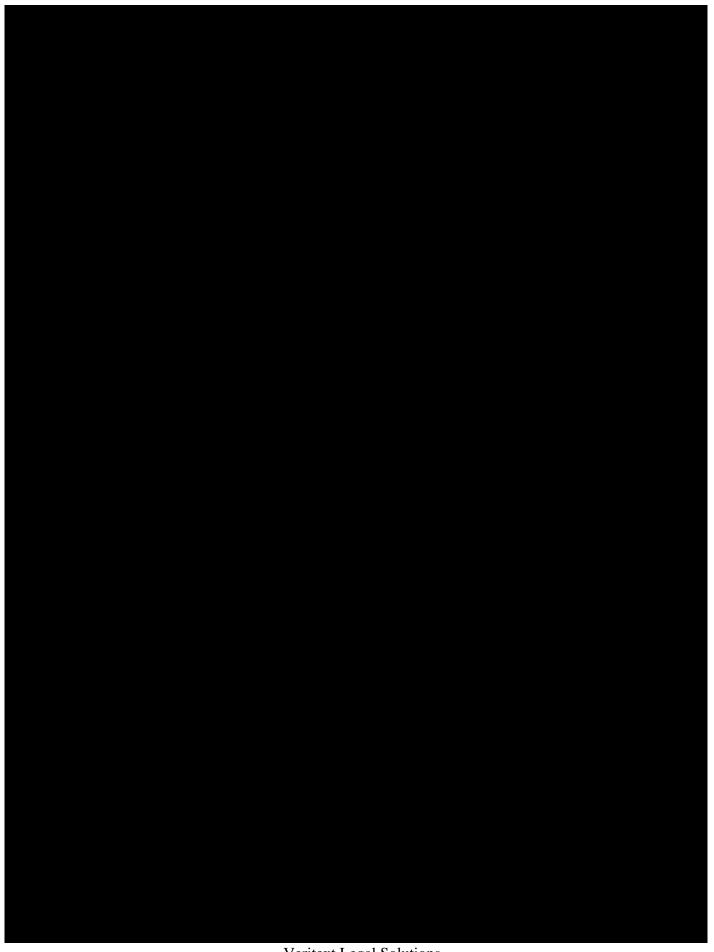
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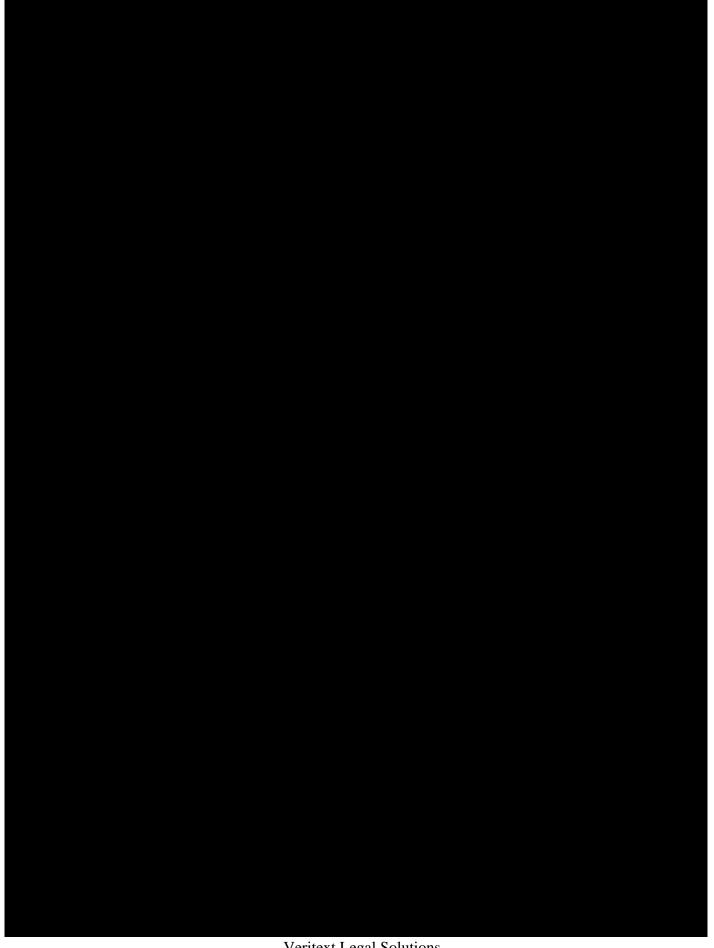
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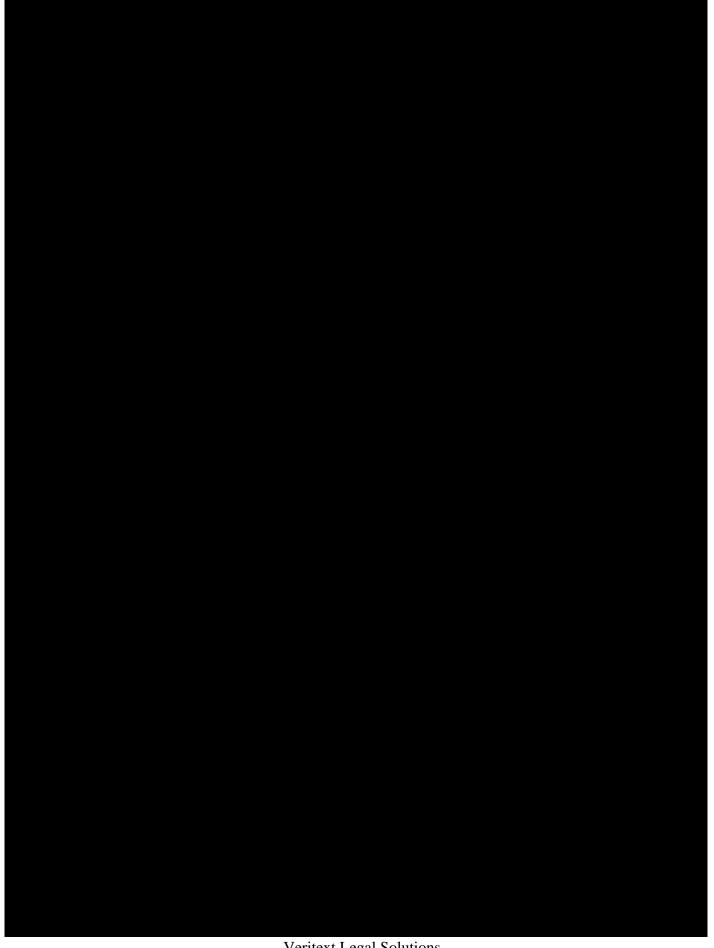
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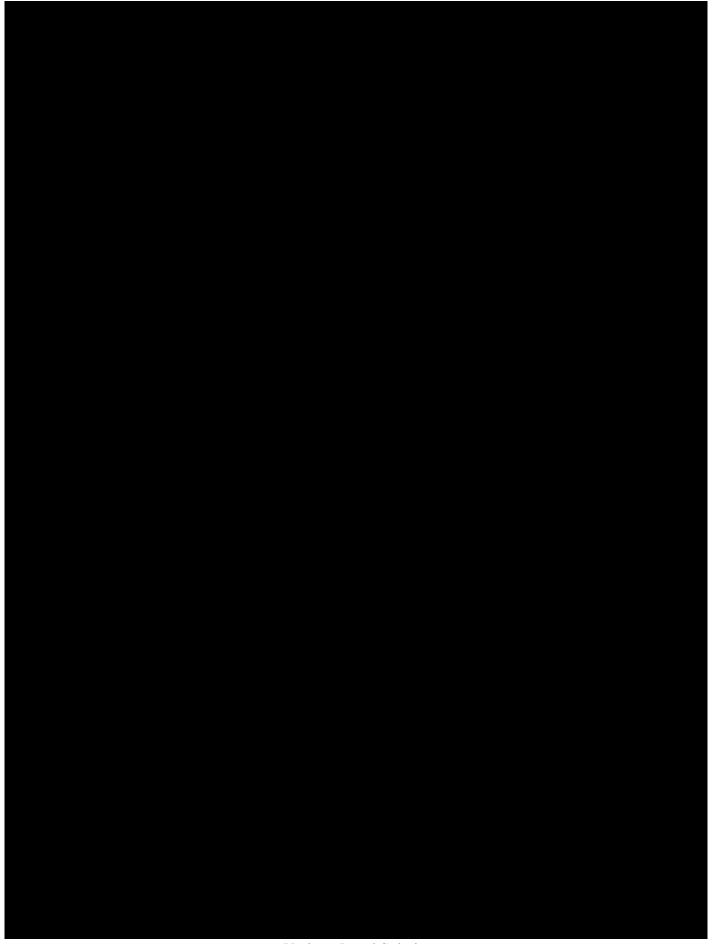
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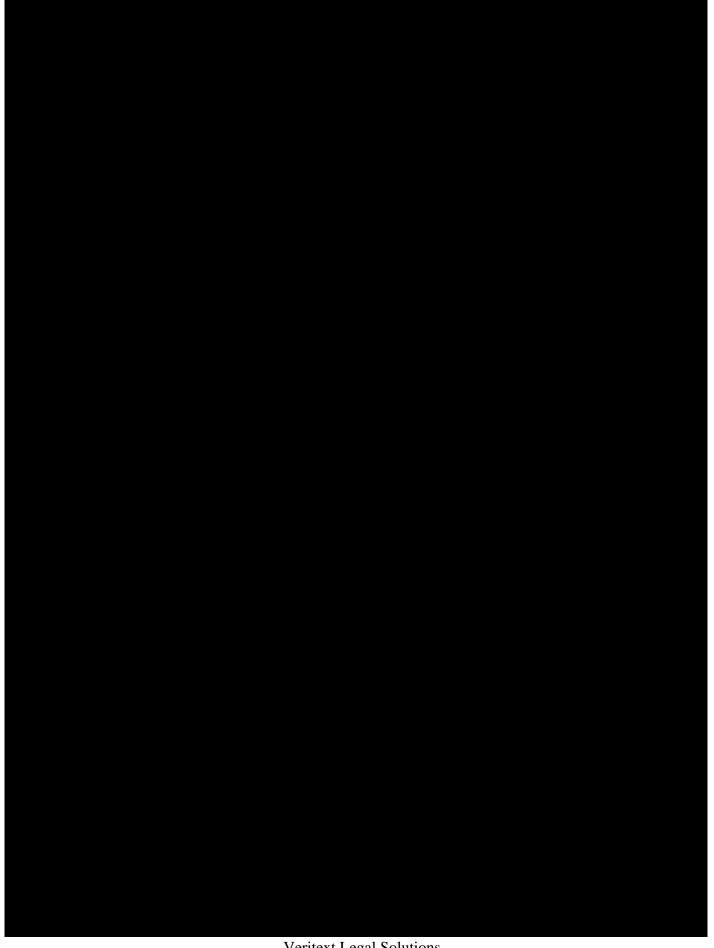
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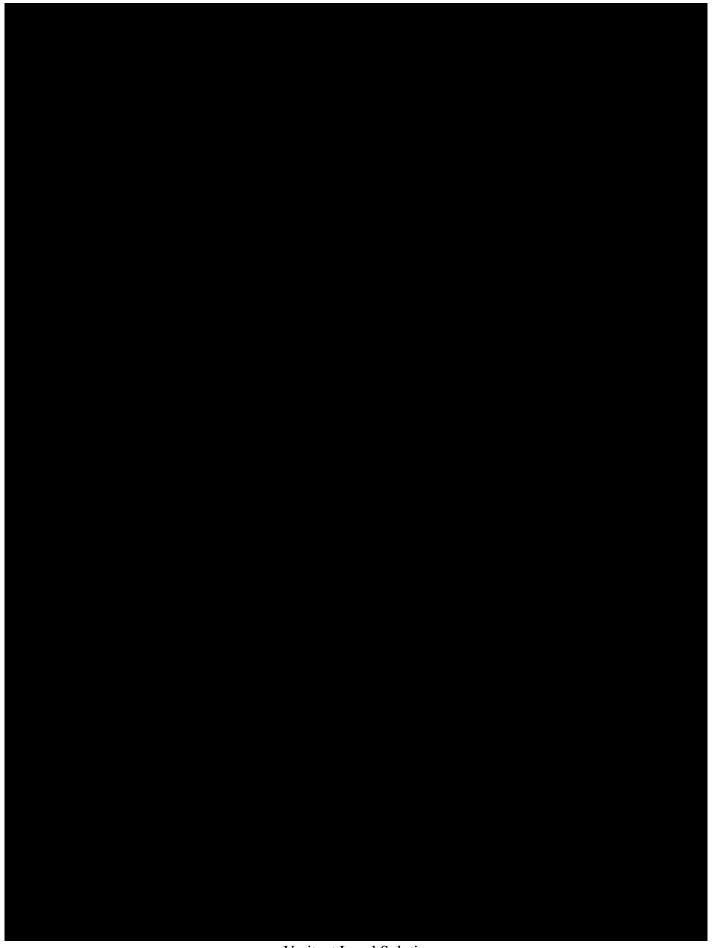
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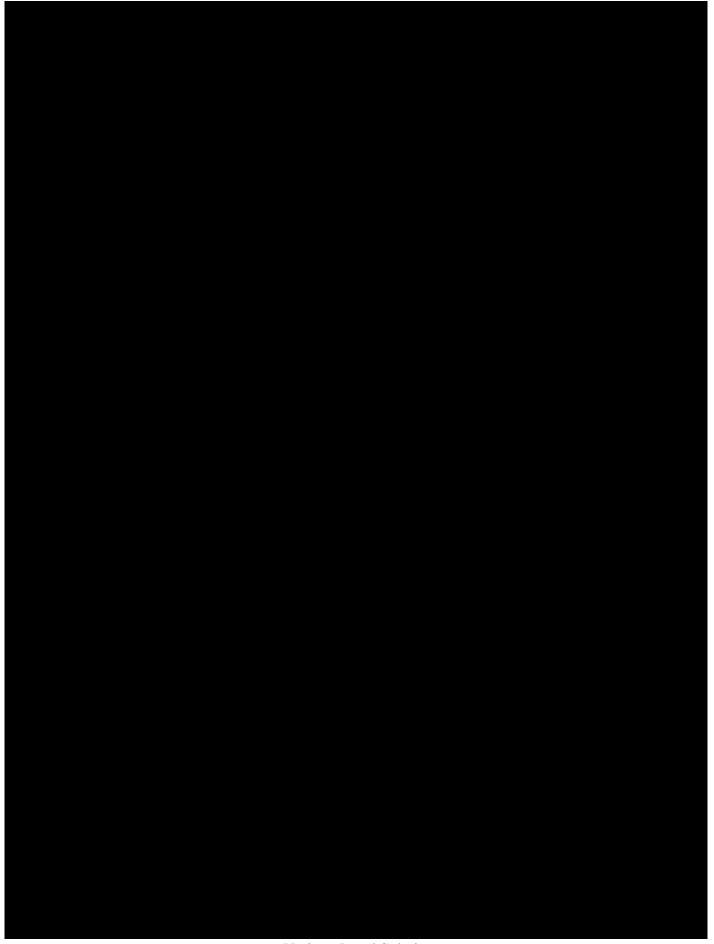
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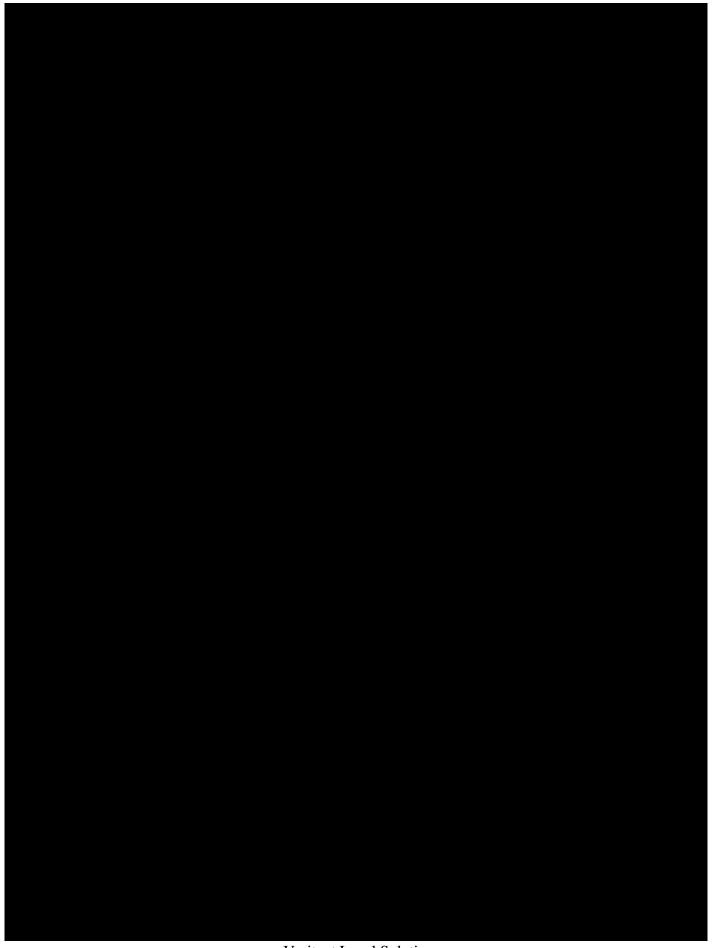
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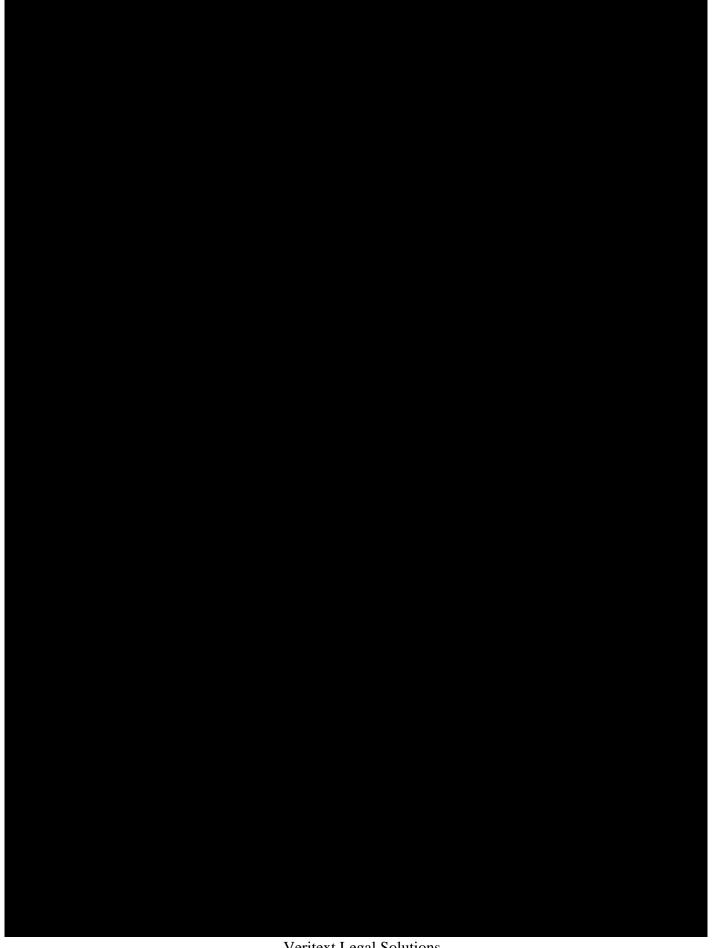
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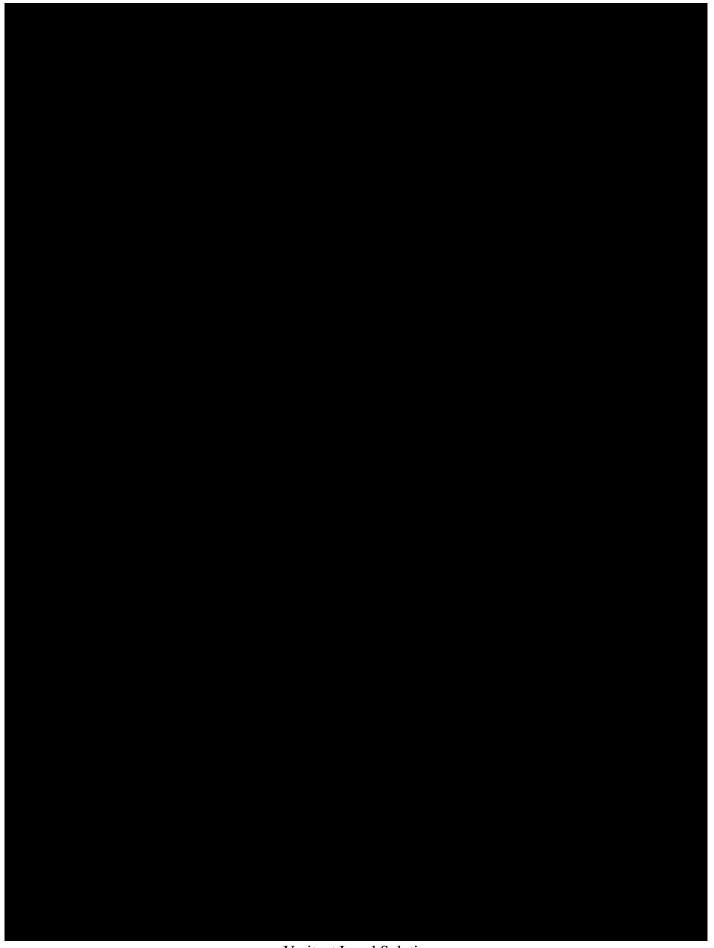
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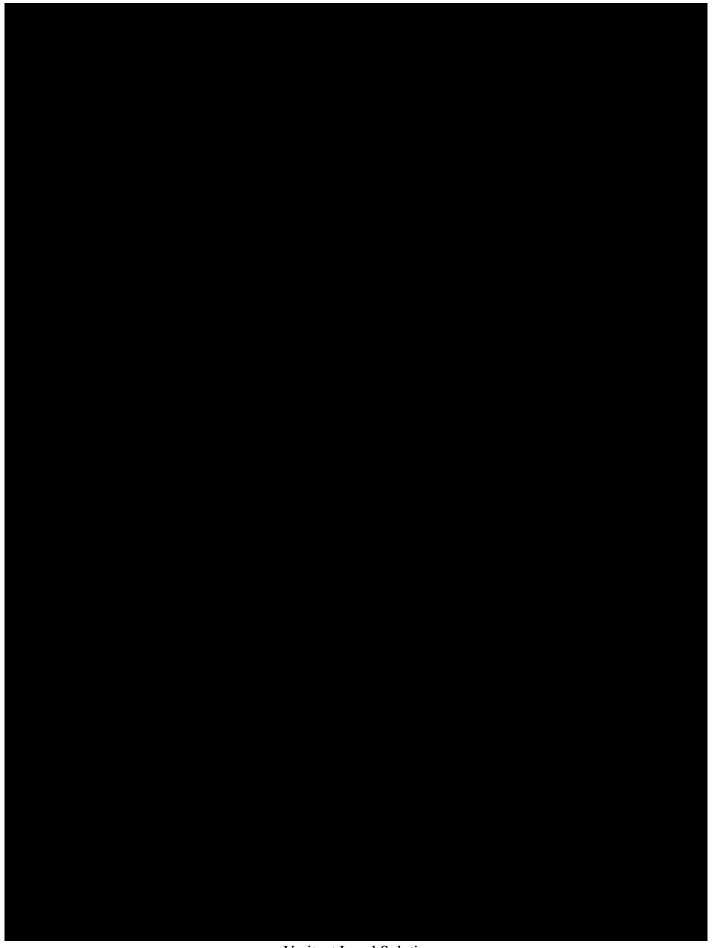
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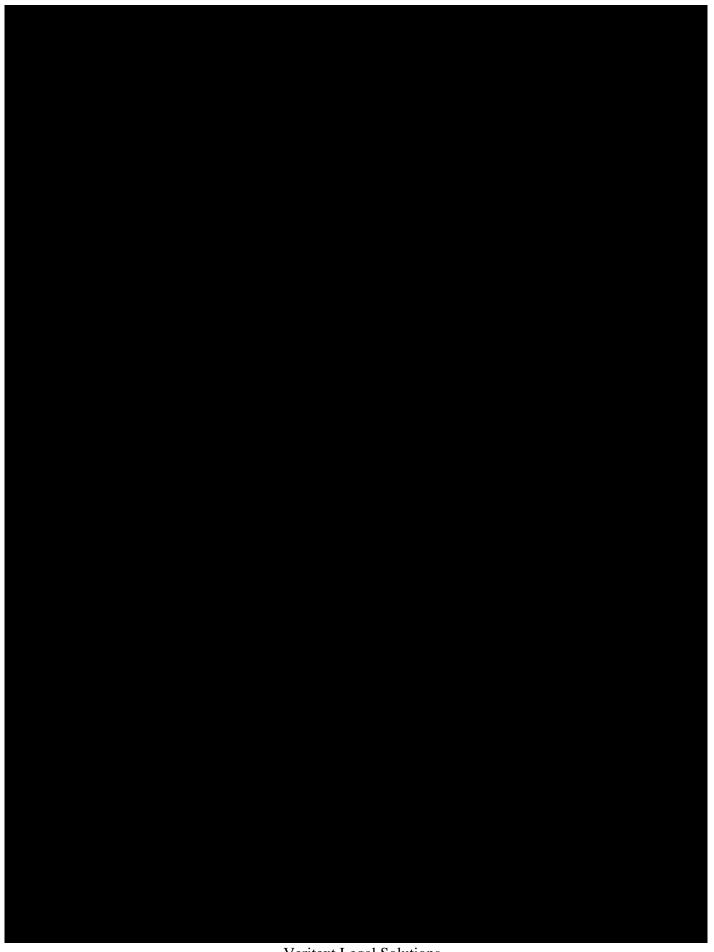
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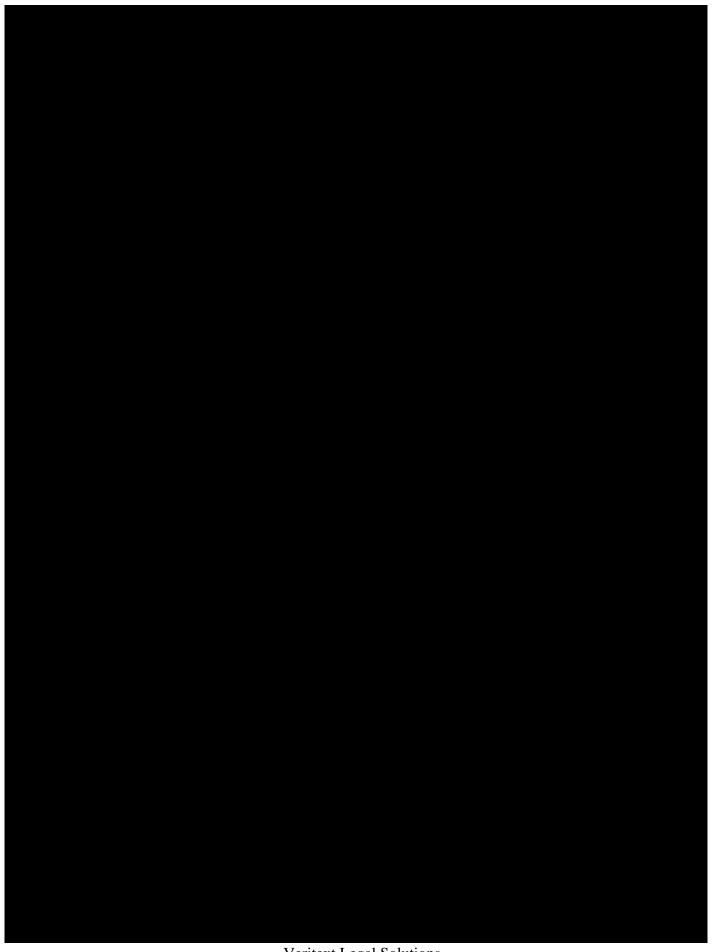
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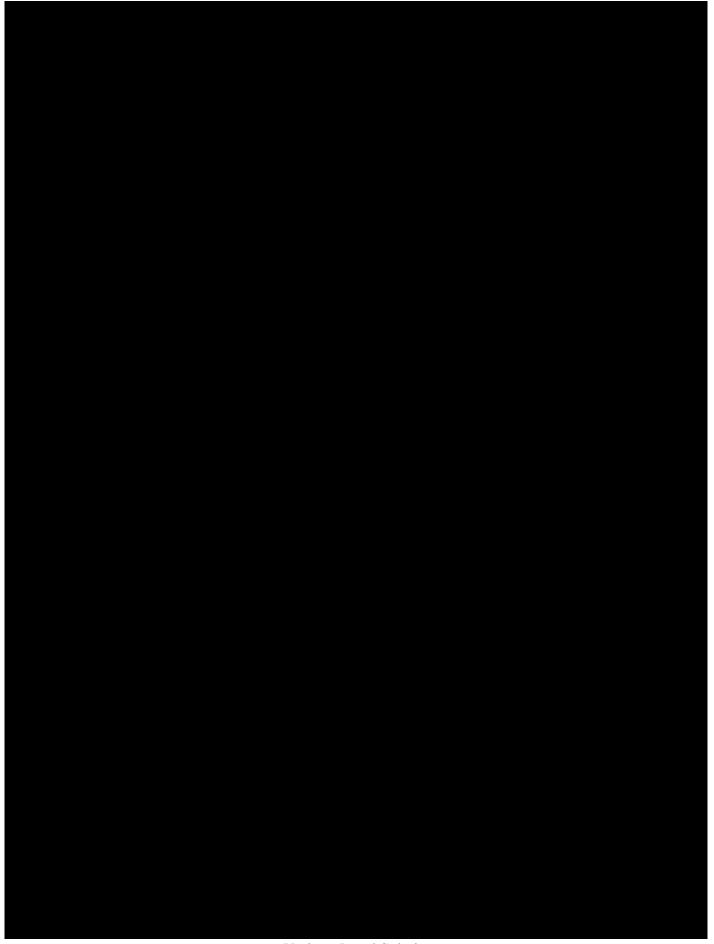
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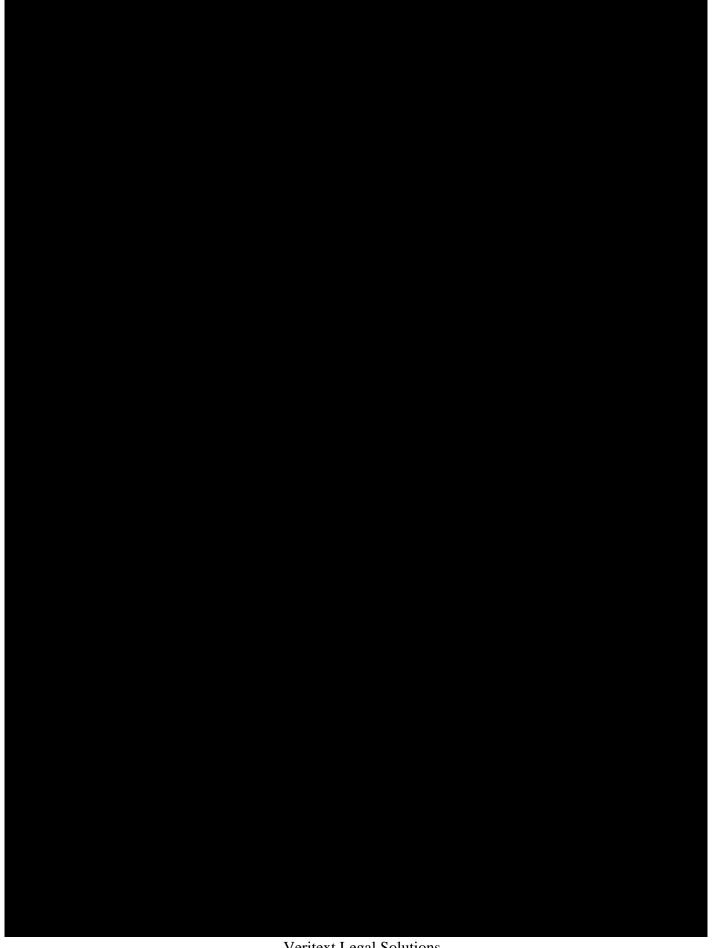
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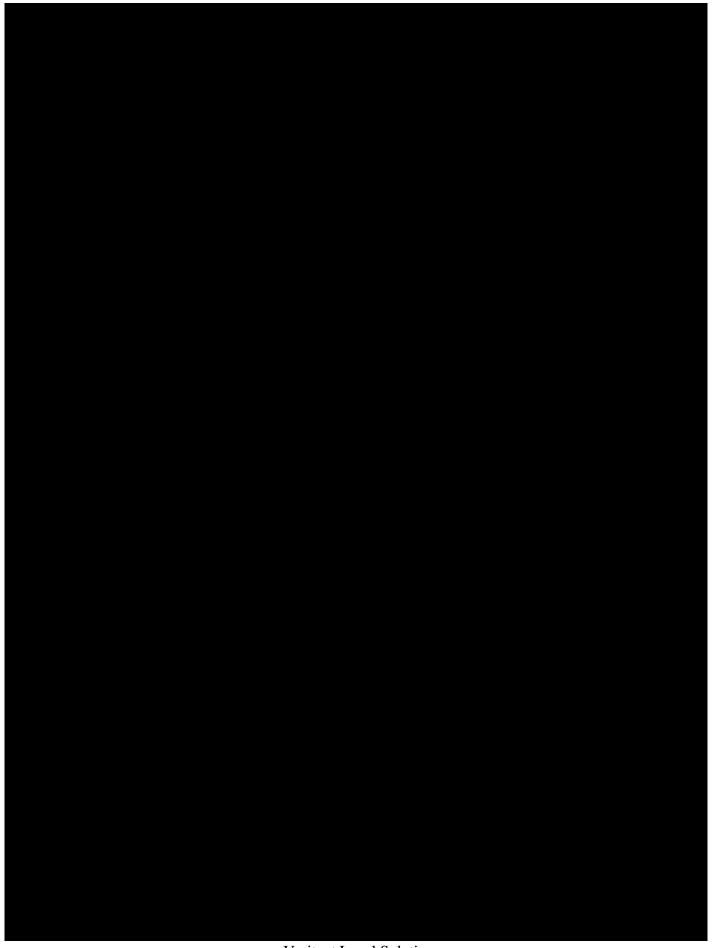
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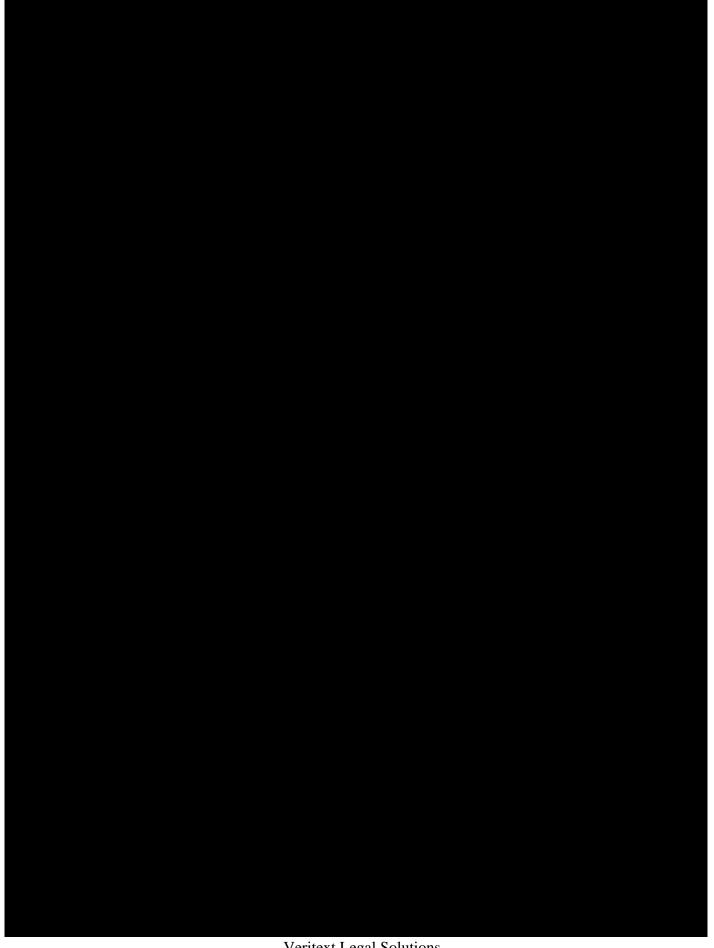
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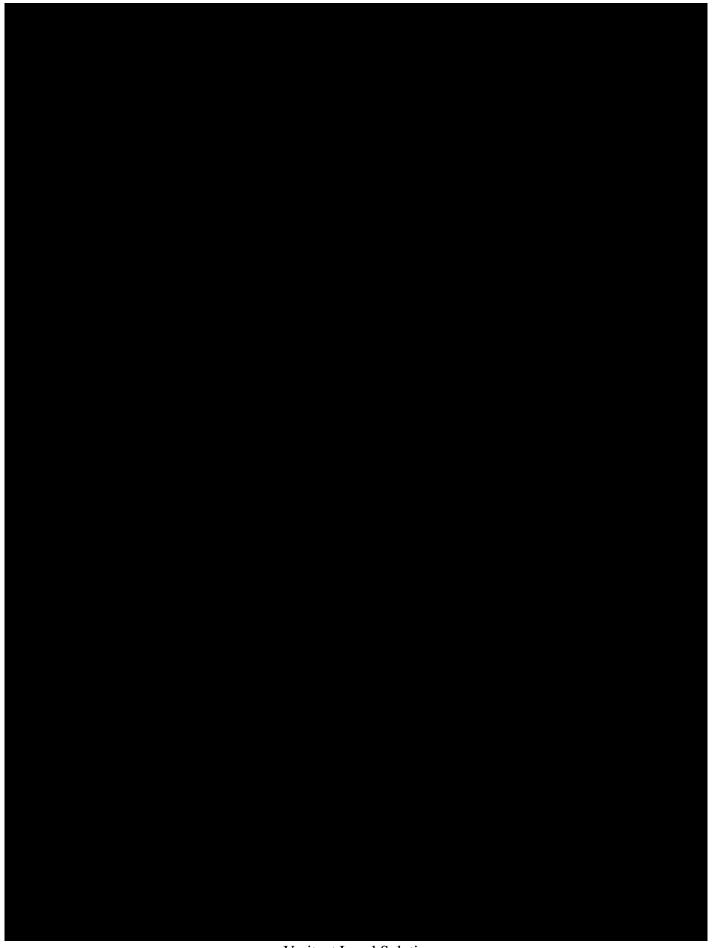
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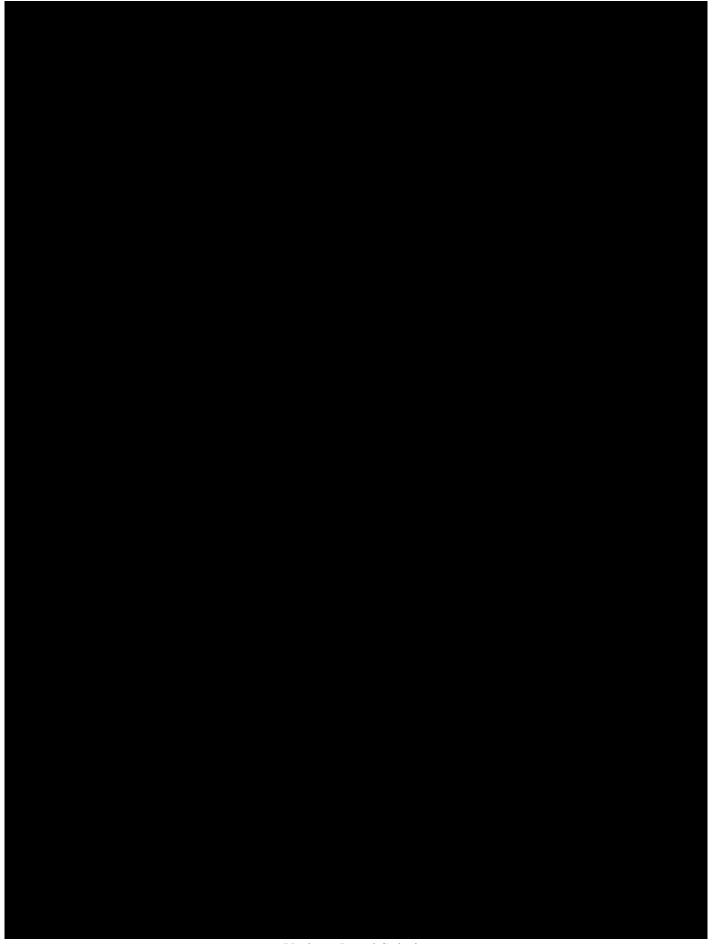
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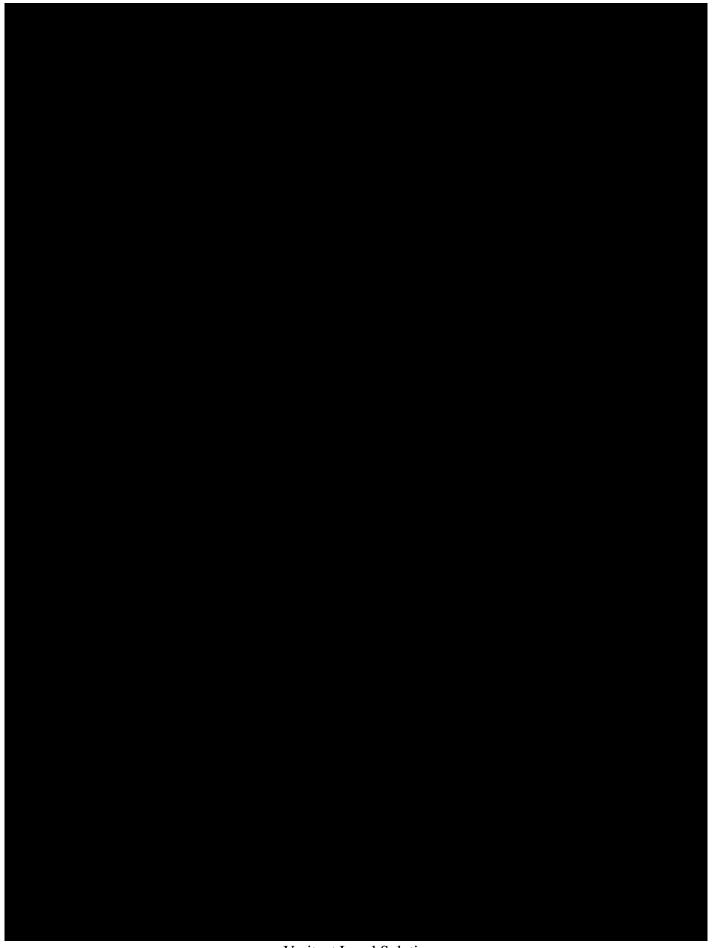
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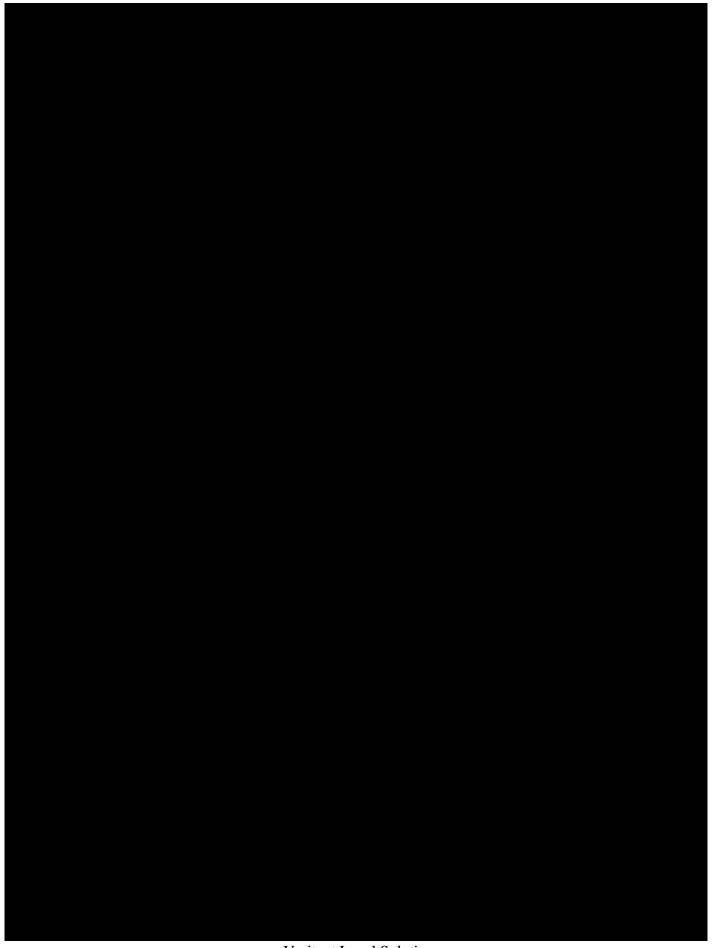
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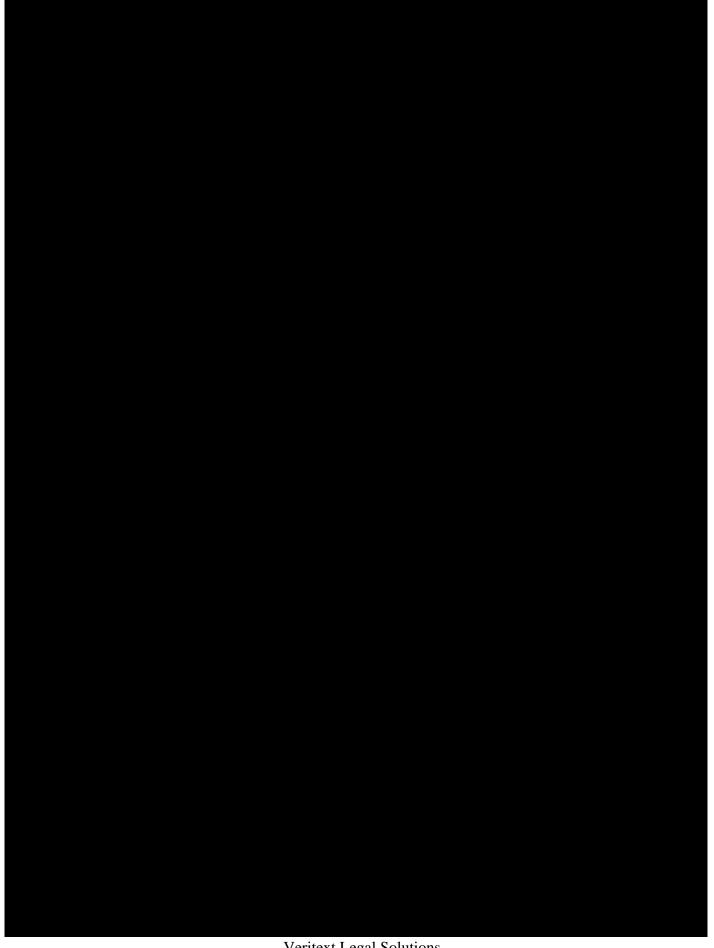
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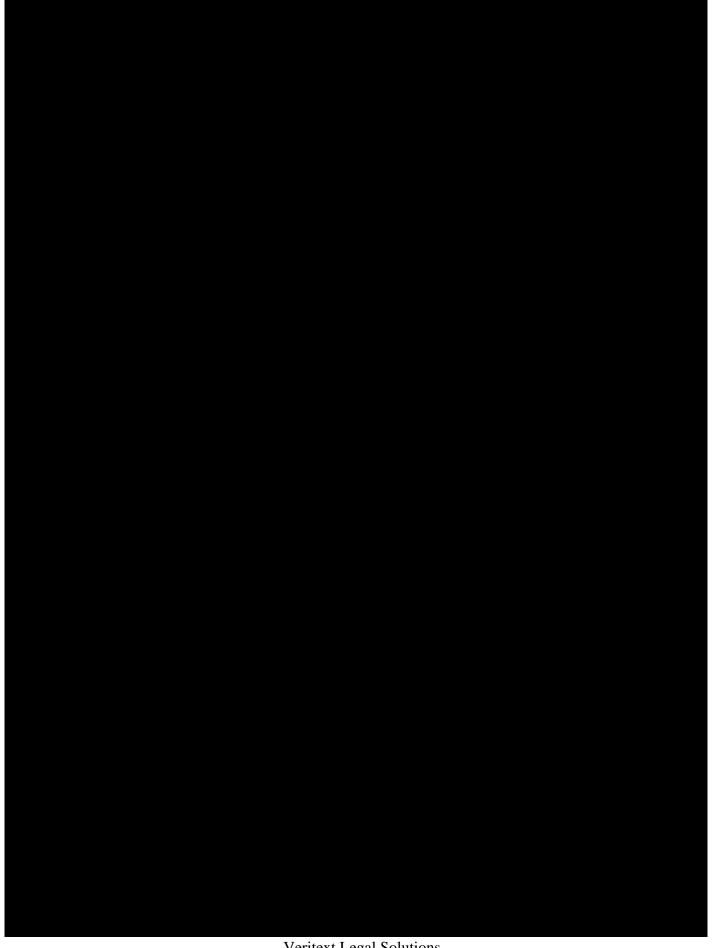
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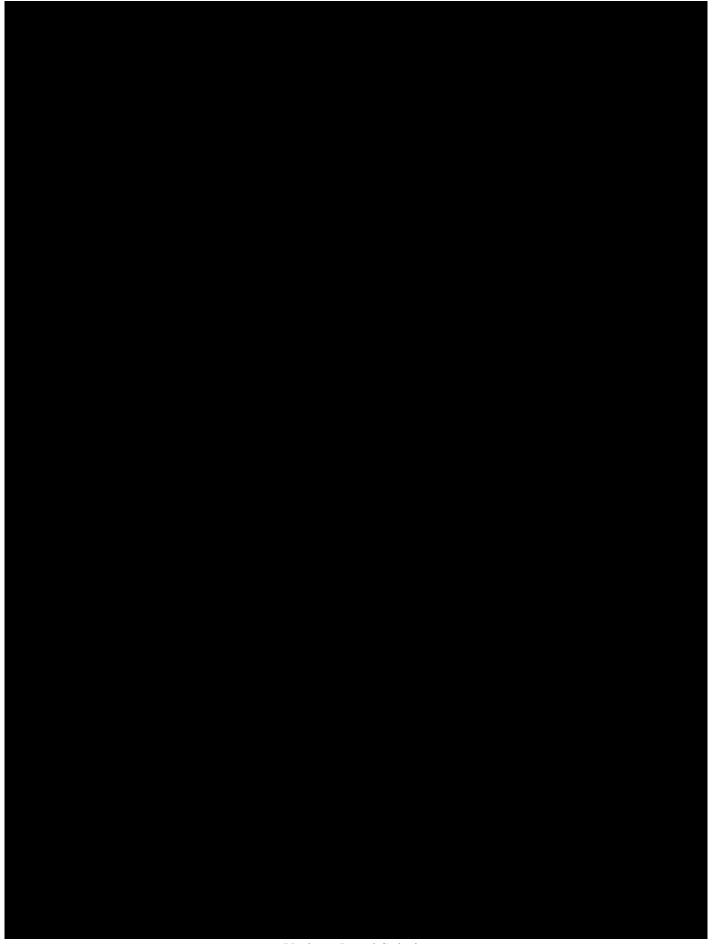
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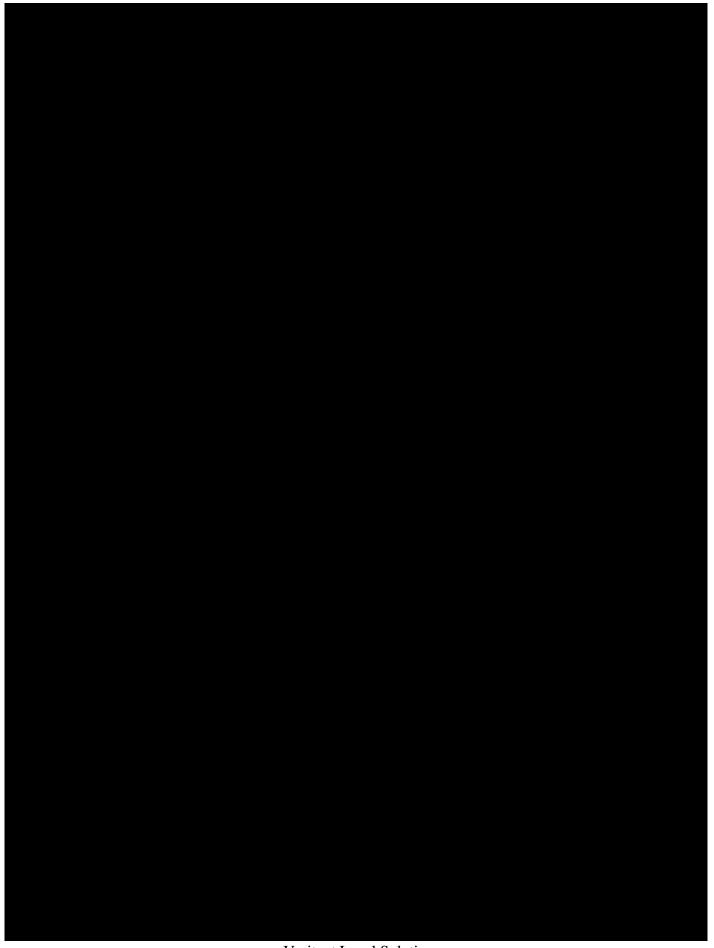
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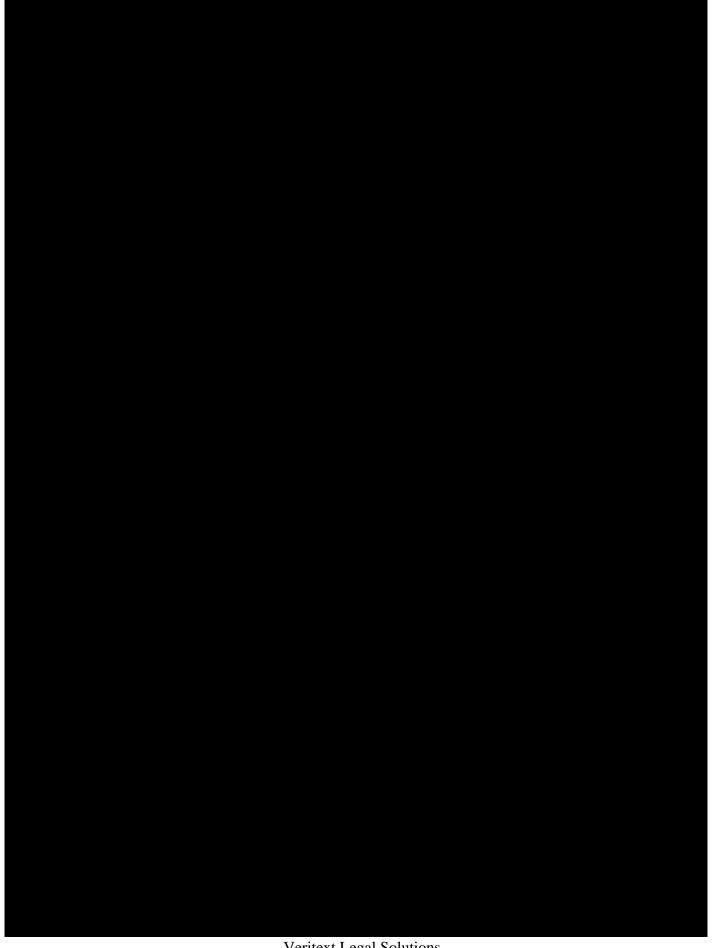
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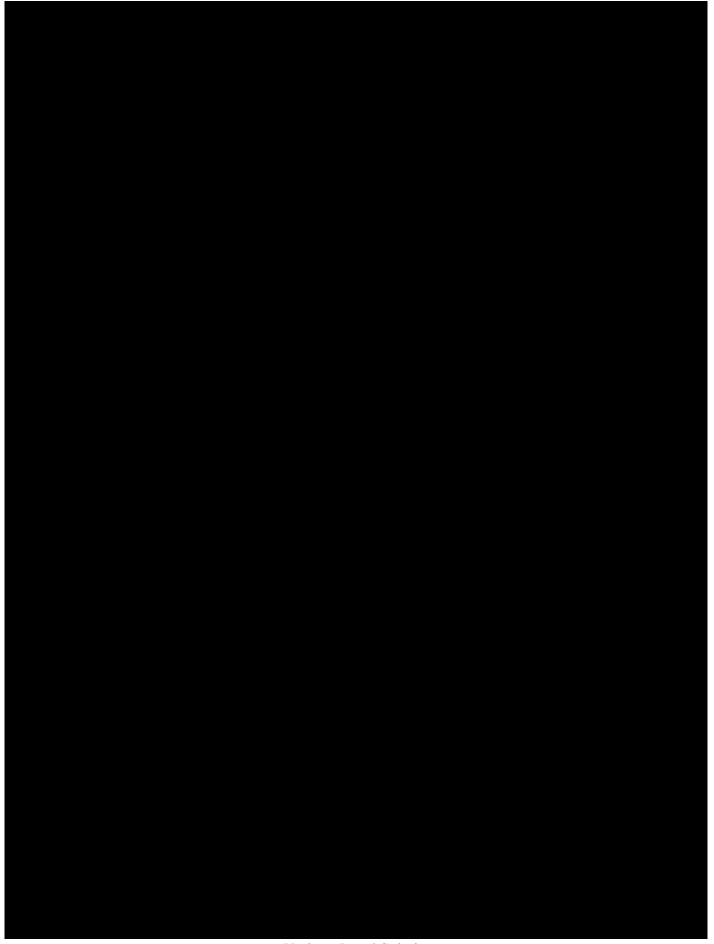
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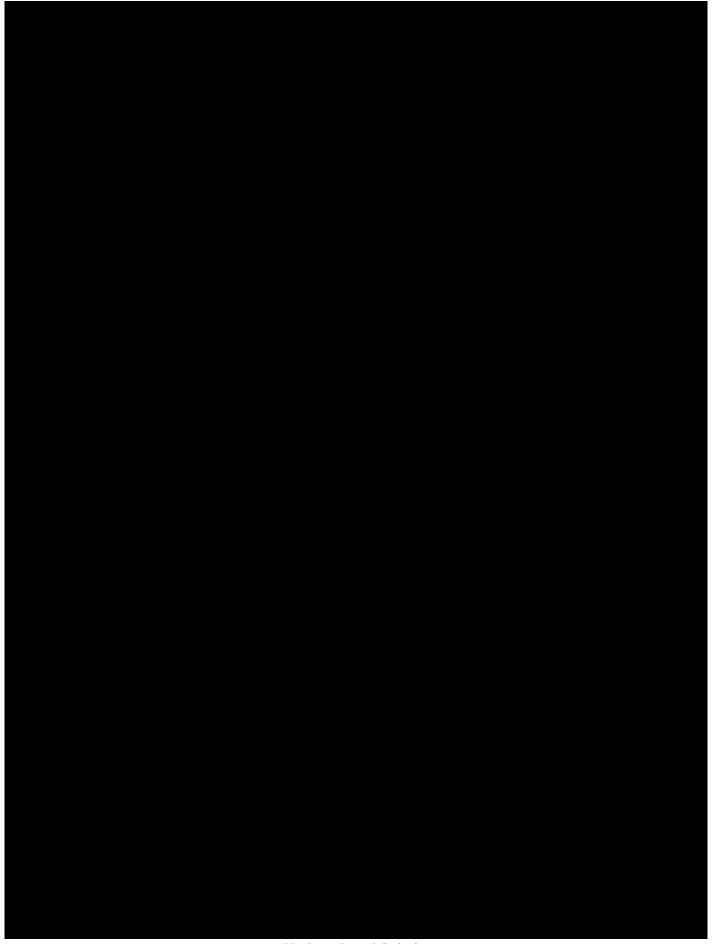
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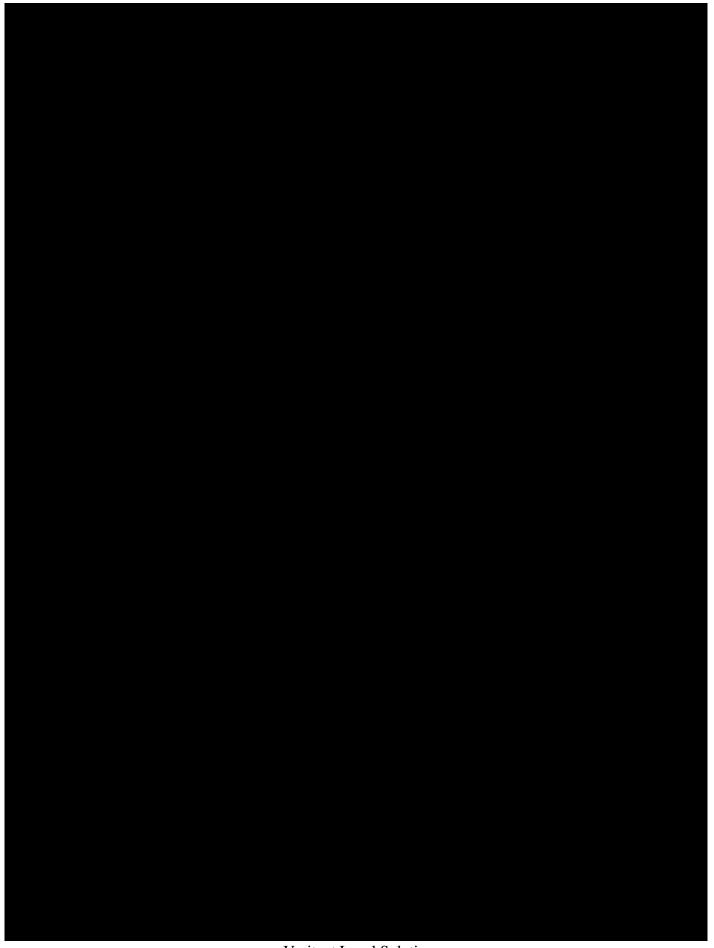
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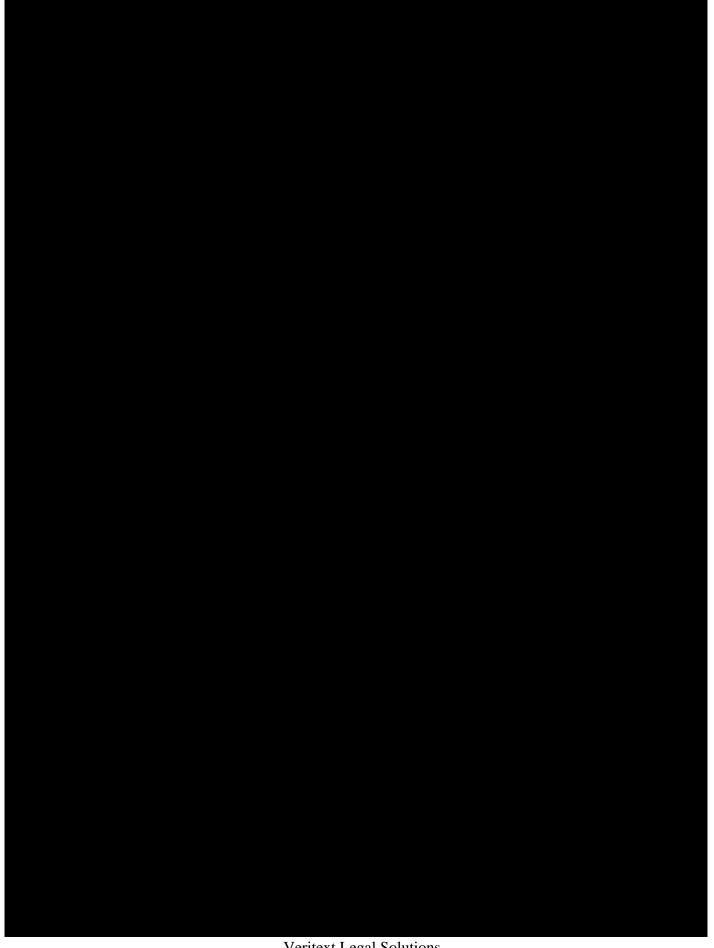
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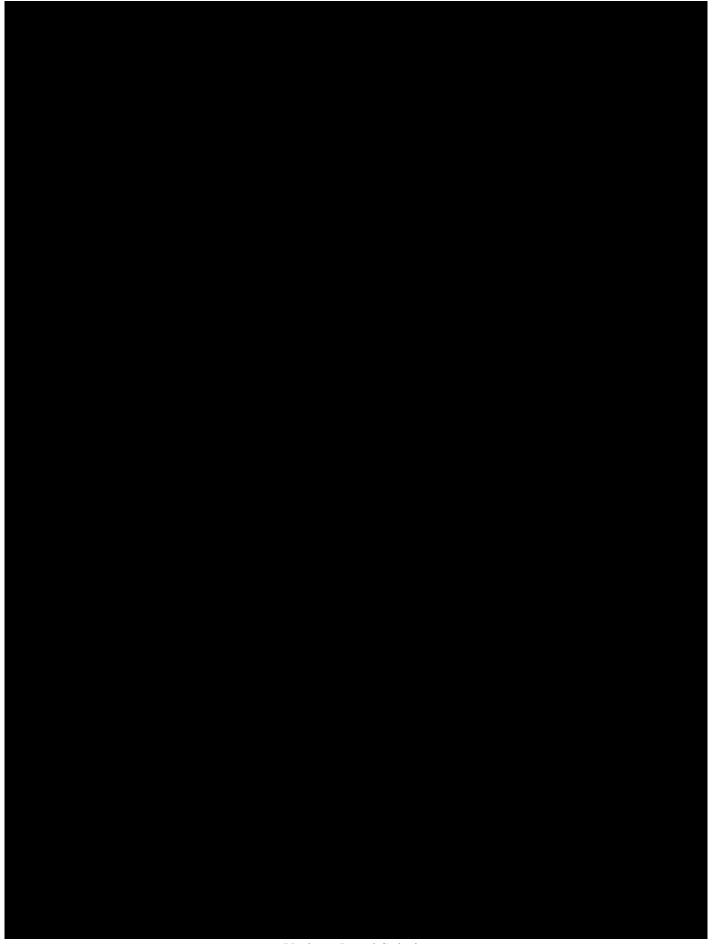
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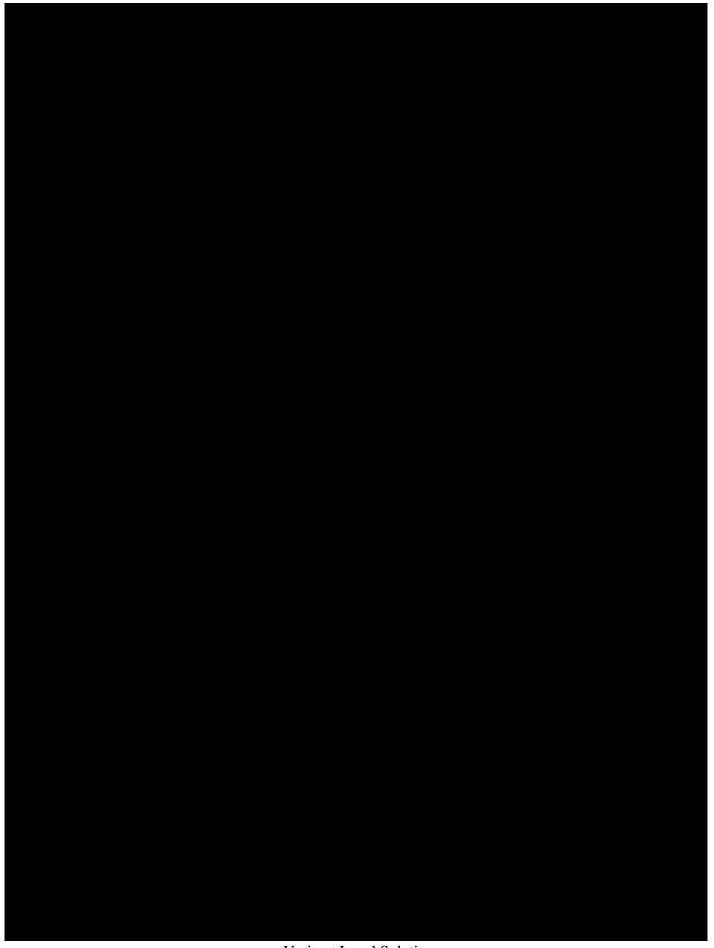
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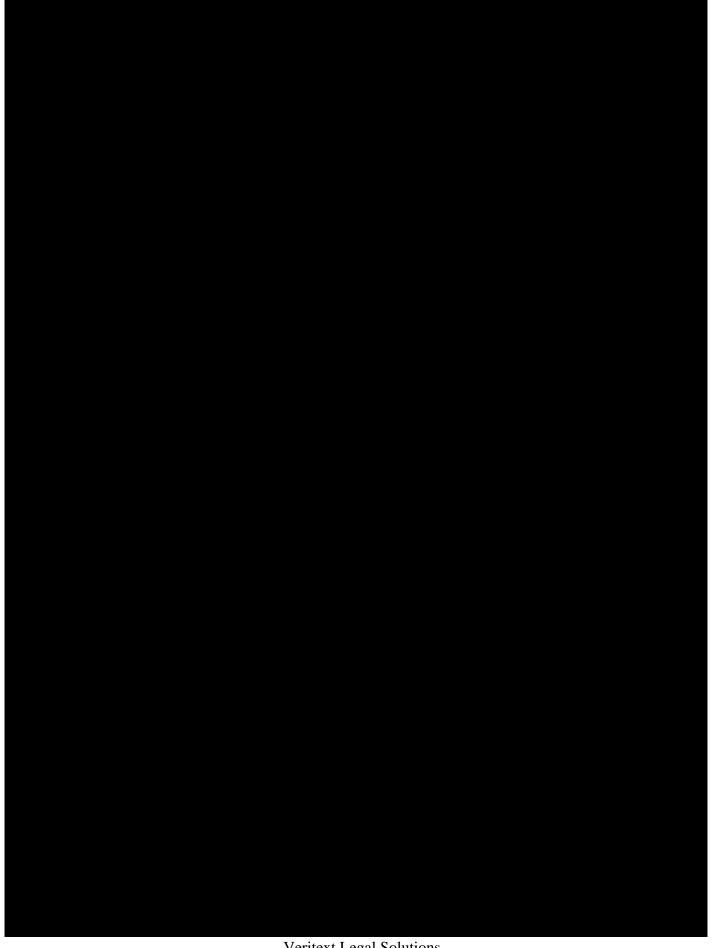
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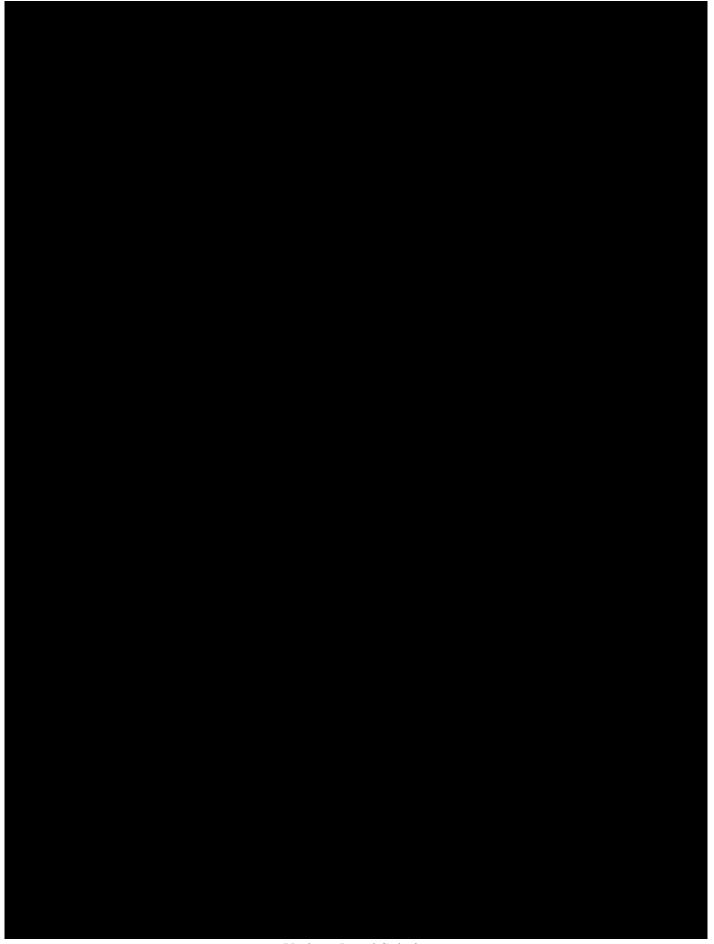
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# Federal Rules of Civil Procedure Rule 30

- (e) Review By the Witness; Changes.
- (1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:
- (A) to review the transcript or recording; and
- (B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.
- (2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES

ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1,

2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES

OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

### VERITEXT LEGAL SOLUTIONS COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

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